

UMD Information Science

# Fiscal Impact Analysis

For the town of New Windsor, Maryland

April 23, 2021



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Under the supervision of Professor T.J. Rainsford  
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An initiative of the National Center for Smart Growth

Gerrit Knaap, NCSG Executive Director  
Kimberly Fisher, PALS Director



# UMD Information Science Fiscal Analysis

April 23, 2021

Dear New Windsor Town Leadership:

The students from the University of Maryland, College Park and their Subject Matter Expert from BAE Urban Economics, Inc. (BAE), are very pleased to present to you the Fiscal Impact Analysis for the intended capital improvement upgrades to New Windsor. We would also like to express our thanks to the Town Manager, Mr. Dye, for helping us gather necessary information needed to complete the report, and all other members of New Windsor who had input for the report.

Sincerely,

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Subject Matter Expert:

Bilal Ali

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## INTRODUCTION

New Windsor, Maryland is seeking to install upgrades to town infrastructure; accomplishing this would have significant costs. Based on preliminary projections, there is potential for growth over the next 20-30 years, and it is important to consider that this growth could bring in new revenue.

New Windsor has commissioned seniors in the University of Maryland's Information Science program, through the PALS program, to complete a fiscal analysis of growth and revenue.

Through collaboration between the UMD team, the New Windsor Mayor and Council, the PALS program, and the subject matter expert from BAE Urban Economics, the UMD team seeks to provide the town of New Windsor with a fiscal impact analysis that will project the expected impact of growth in the town, and if that growth will offset the costs of planned infrastructure improvements.





## PROJECT DESCRIPTION

The student team, under the guidance of subject matter expert Bilal Ali, are seeking to provide the town of New Windsor, Maryland with a fiscal impact analysis. This report will show how growth might impact New Windsor and how growth may be able to offset the costs of the town's planned infrastructure upgrades.

The report examines three different growth scenarios based on Baltimore Metropolitan Council (BMC) projection data as well as historical data to show how varying levels of growth affect fiscal impact. In addition to three growth scenarios the team factored in three priority levels for different infrastructure projects. These priority levels were applied to each growth scenario to see the impacts of completing only top-level priority projects, completing priority one and two projects, or completing all priority levels affect the town budget.

## METHODOLOGY

After meeting with our subject matter expert, the team decided to start the project with an existing conditions analysis to better understand the town's various aspects, including demographic data. We acquired demographic and housing market data from Esri and Redfin for New Windsor, Carroll County, and the Baltimore Metropolitan Council area (in this report, called the Baltimore region). This data allowed us to compare the town and the wider community.

The team continued by using the existing conditions data to create three growth scenarios based on BMC projections for the Baltimore region, Carroll County, and New Windsor, as well as New Windsor's historical growth rate. The growth scenarios began from a baseline of New Windsor's 2020 population. It's important to note that the three scenarios will only come to fruition if the town makes changes that will encourage growth to meet these projected growth scenarios, possible solutions to budget problems and the cost of infrastructure upgrades.

The team then developed the model for the fiscal impact analysis, based on the 2021 Fiscal Year Budget for New Windsor. We listed all the costs, noting which ones were variable, and calculated the average cost per household. We then added all the revenue, some of which had to be independently calculated, and applied the growth scenarios to the average estimated cost and revenue and the fiscal impact over the next 25 years.

To finish, we also developed three debt scenarios to show how New Windsor might approach its capital improvement plan. These scenarios were compared to the fiscal impact scenarios to show a range of outcomes.

## EXISTING CONDITIONS ANALYSIS AND GROWTH SCENARIOS

### DEMOGRAPHIC OVERVIEW

#### SPECIFIC METHODOLOGY

To better understand New Windsor's existing conditions, we aggregated an array of demographic and socioeconomic data in different categories and compared New Windsor's findings to Carroll County and the Baltimore region.

The town's revenue is significantly influenced by population growth, and an increase in residential population will yield greater revenue, offsetting the financial burden from the capital improvements. Our existing conditions serve as a foundation for the three growth scenarios, particularly scenario one, which is dependent on the town's historical growth rate. By analyzing existing conditions, we can identify demographic and market trends that provide insight into ways the town can drive population growth and increase revenue.

#### POPULATION

New Windsor has a relatively small population with above-average annual growth in the region. With a population of 1,396 in 2010 and 1,482 in 2020, New Windsor saw a 6% growth in population, higher than in Carroll County (3%) or the BMC region (5%).

TABLE 1: POPULATION CHANGE, 2010-2020

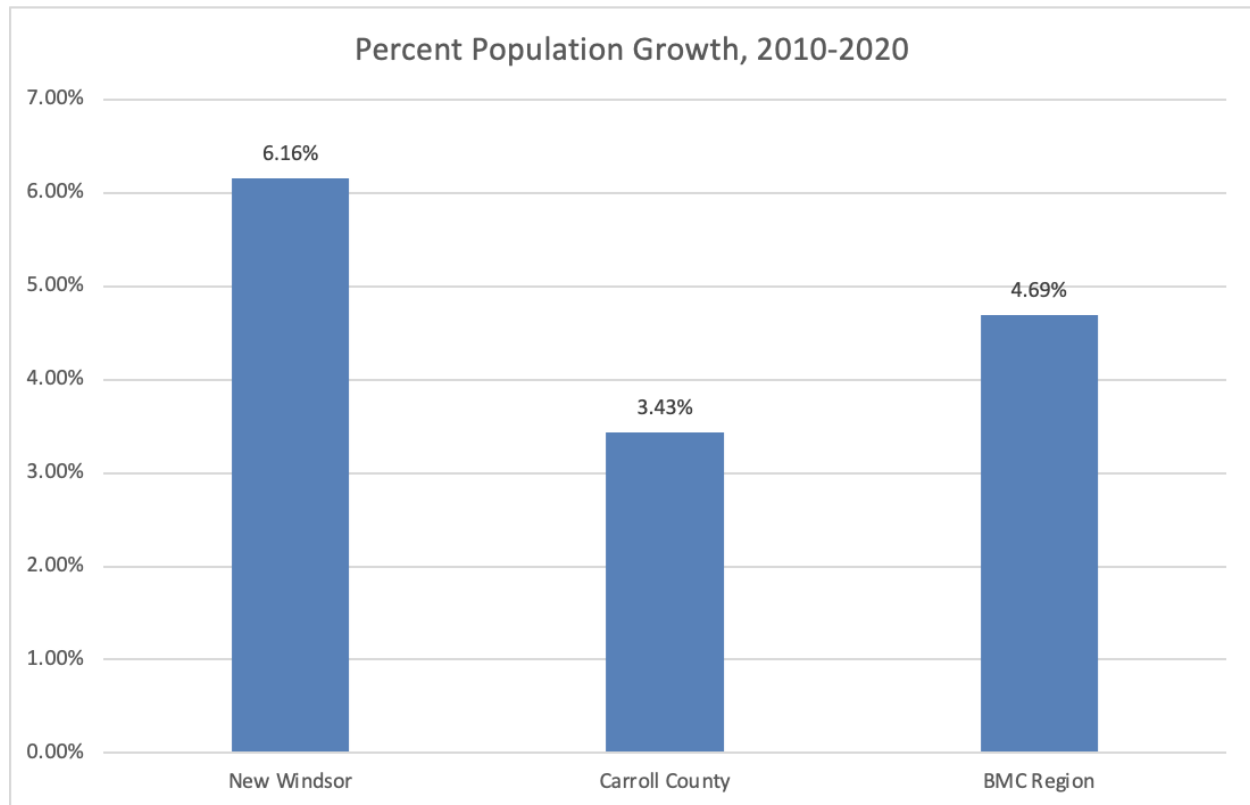
| Population     | 2010      | 2020      | Change 2010-2020 |         |               |
|----------------|-----------|-----------|------------------|---------|---------------|
|                |           |           | Number           | Percent | Annual Change |
| New Windsor    | 1,396     | 1,482     | 86               | 6.2%    | 0.6%          |
| Carroll County | 167,134   | 172,874   | 5,740            | 3.4%    | 0.3%          |
| BMC Region     | 2,763,799 | 2,893,368 | 129,569          | 4.7%    | 0.5%          |

Source: Esri Business Analyst, BAE 2021

2010 Data Sourced from U.S Census

2020 Data Sourced from Esri

FIGURE 1: PERCENT POPULATION GROWTH, 2010-2020



#### TOTAL HOUSEHOLDS

Between 2010 and 2020, New Windsor saw a higher increase in total households relative to Carroll County and the Baltimore region—43 new households, an 8% increase. This is higher than the 4% household growth in Carroll County and the 4.26% increase in the BMC. This historical growth rate for New Windsor is the basis of the first growth scenario.

TABLE 2: TOTAL HOUSEHOLD CHANGE, 2010-2020

| Total Households | 2010      | 2020      | Change 2010-2020 |         | Annual Change |
|------------------|-----------|-----------|------------------|---------|---------------|
|                  |           |           | Number           | Percent |               |
| New Windsor      | 526       | 569       | 43               | 8.2%    | 0.8%          |
| Carroll County   | 59,786    | 62,125    | 2,339            | 3.9%    | 0.4%          |
| BMC Region       | 1,057,616 | 1,102,659 | 45,043           | 4.3%    | 0.4%          |

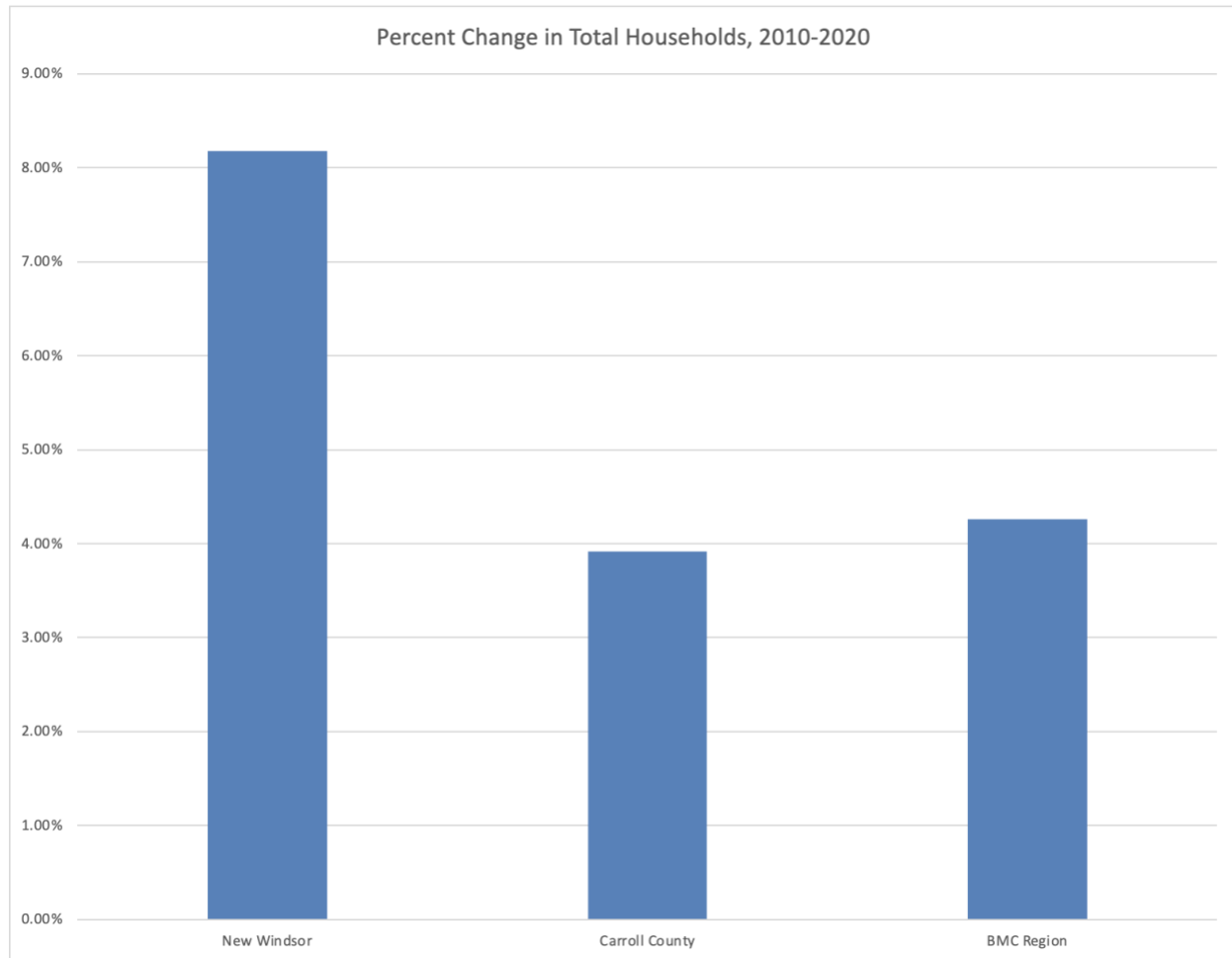
Source: Esri Business Analyst, BAE 2021

2010 Data Sourced from U.S Census

2020 Data Sourced from Esri



FIGURE 2: PERCENT CHANGE IN TOTAL HOUSEHOLDS, 2010-2020



#### AVERAGE HOUSEHOLD SIZE

The average household size in New Windsor decreased slightly, from 2.65 in 2010 to 2.60 in 2020, indicating a slight trend toward smaller households.

TABLE 3: AVERAGE HOUSEHOLD SIZE CHANGE, 2010-2020

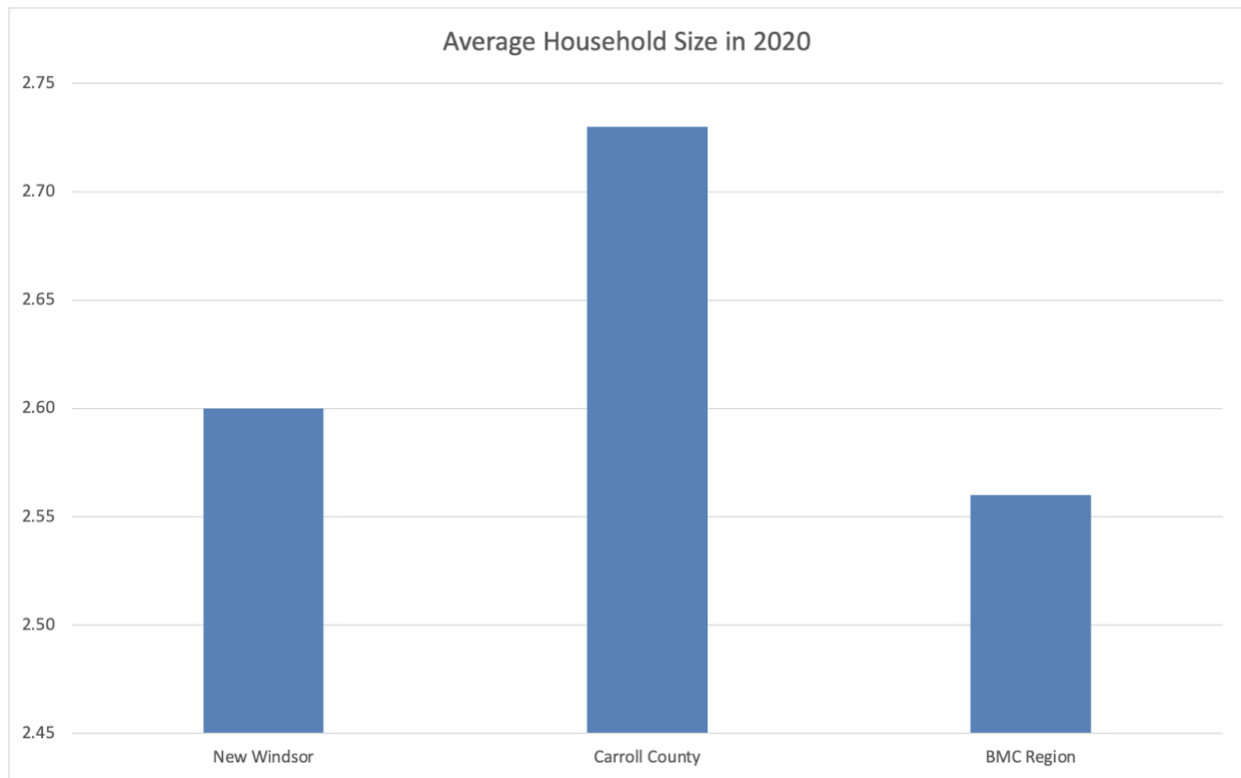
| Average Household Size | 2010 | 2020 | Change 2010-2020 |         | Annual Change |
|------------------------|------|------|------------------|---------|---------------|
|                        |      |      | Number           | Percent |               |
| New Windsor            | 2.65 | 2.60 | -0.05            | -1.89%  | -0.19%        |
| Carroll County         | 2.74 | 2.73 | -0.01            | -0.36%  | -0.04%        |
| BMC Region             | 2.55 | 2.56 | 0.01             | 0.39%   | 0.04%         |

Source: Esri Business Analyst, BAE 2021

2010 Data Sourced from U.S Census

2020 Data Sourced from Esri

FIGURE 3: AVERAGE HOUSEHOLD SIZE, 2020



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## AGE DISTRIBUTION

The current age distribution dynamics in New Windsor provide critical insight into market trends. The rapid growth in individuals between the ages of 65-79 suggests that New Windsor has features that appeal to seniors. The town can leverage this finding to build on the attributes attractive to seniors, thereby attracting more residents and building a larger population.

Between 2010 and 2020, New Windsor saw a rapid growth in residents aged 65-79—a 76% increase. This is significantly higher than in Carroll County (50.54%) and the Baltimore region (48.20%). Similarly, the town saw a relatively small contraction in the number of residents aged 35-49 over this ten-year period, with a decrease of 17%.

These findings suggest that the town is appealing to seniors, which New Windsor might use to increase its population by investing in the attributes that seniors find attractive. Similarly, the contraction in individuals aged 35-49 suggests an opportunity for growth in this cohort, which can be especially beneficial given the fact that this age group has higher spending power than seniors.

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TABLE 4: AGE DISTRIBUTION IN NEW WINDSOR, 2010-2020

| New Windsor | 2010   |         | 2020   |         | Change, 2010-2020 |         |
|-------------|--------|---------|--------|---------|-------------------|---------|
|             | Number | Percent | Number | Percent | Number            | Percent |
| 0-19        | 408    | 29.6%   | 319    | 21.6%   | -89               | -21.8%  |
| 20-34       | 232    | 16.8%   | 278    | 18.8%   | 46                | 19.8%   |
| 35-49       | 351    | 25.5%   | 292    | 19.8%   | -59               | -16.8%  |
| 50-64       | 221    | 16.0%   | 322    | 21.8%   | 101               | 45.7%   |
| 65-79       | 105    | 7.6%    | 185    | 12.5%   | 80                | 76.2%   |
| 80+         | 62     | 4.5%    | 82     | 5.5%    | 20                | 32.3%   |
| Total       | 1,379  | 100.0%  | 1,478  | 100.0%  | 99                | 7.2%    |

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TABLE 5: AGE DISTRIBUTION IN CARROLL COUNTY, 2010-2020

| Carroll County | 2010    |         | 2020    |         | Change, 2010-2020 |         |
|----------------|---------|---------|---------|---------|-------------------|---------|
|                | Number  | Percent | Number  | Percent | Number            | Percent |
| 0-19           | 43,628  | 26.4%   | 40,738  | 23.6%   | -2,890            | -6.6%   |
| 20-34          | 24,815  | 15.0%   | 29,769  | 17.2%   | 4,954             | 20.0%   |
| 35-49          | 39,380  | 23.9%   | 31,889  | 18.4%   | -7,491            | -19.0%  |
| 50-64          | 35,376  | 21.4%   | 39,609  | 22.9%   | 4,233             | 12.0%   |
| 65-79          | 15,601  | 9.5%    | 23,486  | 13.6%   | 7,885             | 50.5%   |
| 80+            | 6,208   | 3.8%    | 7,383   | 4.3%    | 1,175             | 18.9%   |
| Total          | 165,008 | 100.0%  | 172,874 | 100.0%  | 7,866             | 4.8%    |

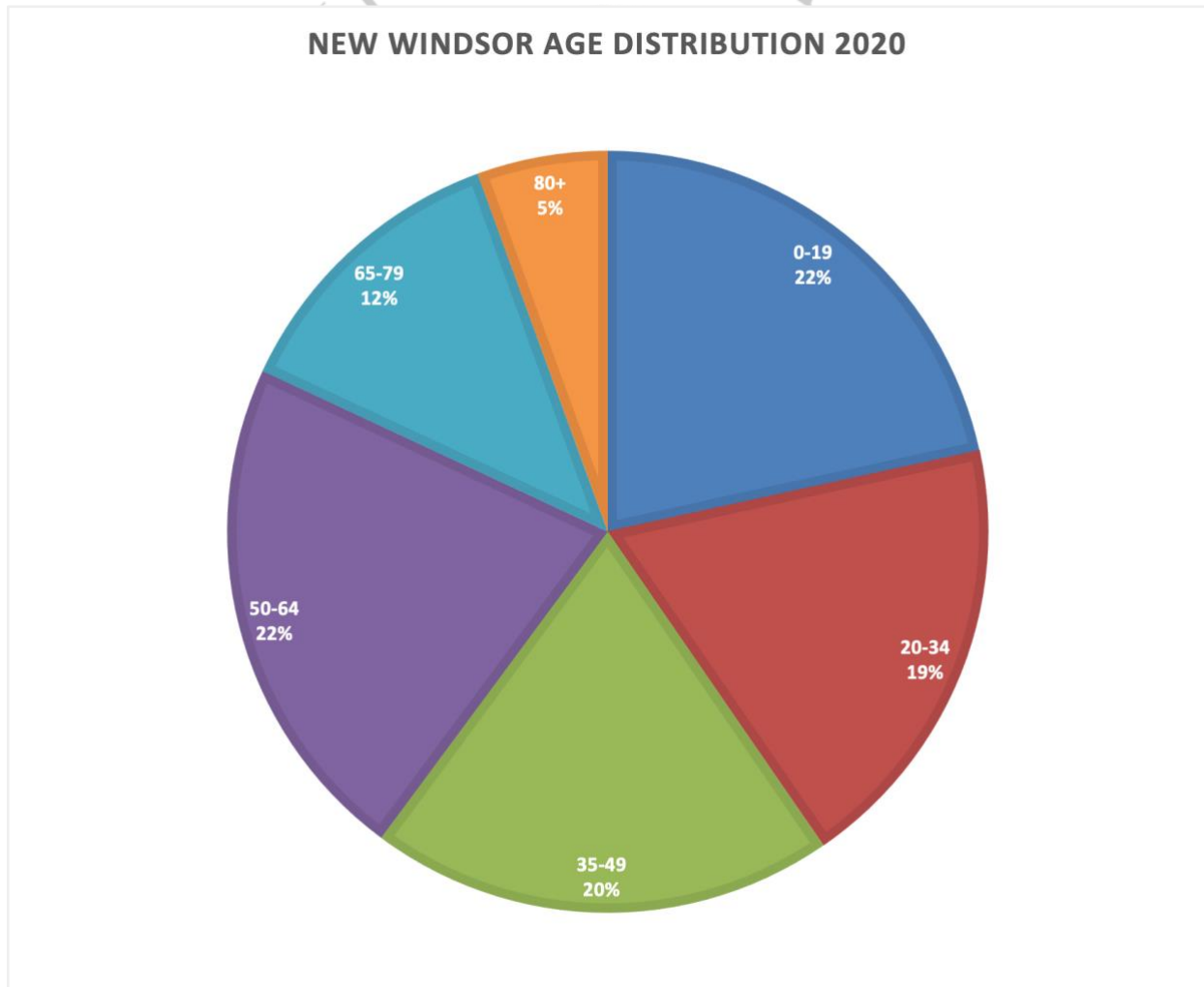
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TABLE 6: AGE DISTRIBUTION IN THE BMC REGION, 2010-2020

| BMC Region | 2010      |         | 2020      |         | Change, 2010-2020 |         |
|------------|-----------|---------|-----------|---------|-------------------|---------|
|            | Number    | Percent | Number    | Percent | Number            | Percent |
| 0-19       | 675,948   | 24.8%   | 687,855   | 23.8%   | 11,907            | 1.8%    |
| 20-34      | 563,208   | 20.7%   | 587,721   | 20.3%   | 24,513            | 4.4%    |
| 35-49      | 589,264   | 21.6%   | 547,950   | 18.9%   | -41,314           | -7.0%   |
| 50-64      | 548,348   | 20.1%   | 585,132   | 20.2%   | 36,784            | 6.7%    |
| 65-79      | 247,117   | 9.1%    | 366,219   | 12.7%   | 119,102           | 48.2%   |
| 80+        | 100,128   | 3.7%    | 118,491   | 4.1%    | 18,363            | 18.3%   |
| Total      | 2,724,013 | 100.0%  | 2,893,368 | 100.0%  | 169,355           | 6.2%    |

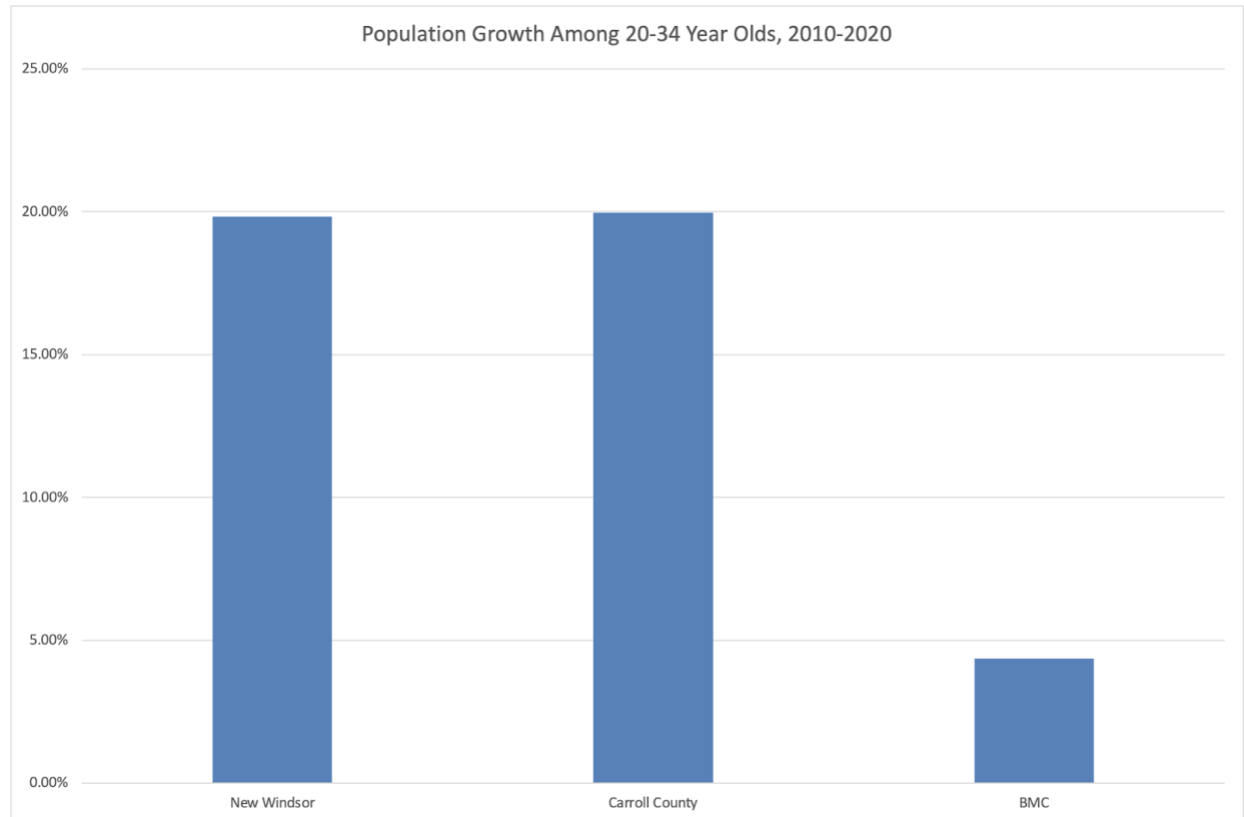
Source: 2010 data from American Census Survey, 2020 data from Esri Business Analyst

FIGURE 4: NEW WINDSOR AGE DISTRIBUTION, 2020



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**FIGURE 5: POPULATION GROWTH AMONG 20-34 YEAR OLDS, 2010-2020**



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#### RACE AND ETHNICITY

New Windsor hasn't seen much change in the racial demographic distribution over the past 10 years, apart from the Hispanic community, which has seen significant growth at 117% over the past ten years. However, this statistic only represents a small proportion of the town population. The ethnic makeup in Carroll County and the Baltimore region has remained relatively stable over the past ten years.



TABLE 7: RACE AND ETHNICITY DISTRIBUTION IN NEW WINDSOR, 2010-2020

|                        | 2010   |         | 2020   |         | Change, 2010-2020 |         |
|------------------------|--------|---------|--------|---------|-------------------|---------|
|                        | Number | Percent | Number | Percent | Number            | Percent |
| <b>New Windsor</b>     |        |         |        |         |                   |         |
| Hispanic               | 23     | 1.6%    | 50     | 3.4%    | 27                | 117.4%  |
| White                  | 1,288  | 92.3%   | 1,319  | 89.0%   | 31                | 2.4%    |
| Black/African American | 54     | 3.9%    | 62     | 4.2%    | 8                 | 14.8%   |
| American Indian        | 1      | 0.1%    | 1      | 0.1%    | 0                 | 0.0%    |
| Asian                  | 15     | 1.1%    | 16     | 1.1%    | 1                 | 6.7%    |
| Pacific Islander       | 6      | 0.4%    | 7      | 0.5%    | 1                 | 16.7%   |
| Two or more races      | 26     | 1.9%    | 27     | 1.8%    | 1                 | 3.8%    |
| Total                  | 1,396  |         | 1,482  |         |                   |         |

2010 Source: American Census Survey

2020 Source: Esri Business Analyst

TABLE 8: RACE AND ETHNICITY DISTRIBUTION IN CARROLL COUNTY, 2010-2020

|                        | 2010    |         | 2020    |         | Change, 2010-2020 |         |
|------------------------|---------|---------|---------|---------|-------------------|---------|
|                        | Number  | Percent | Number  | Percent | Number            | Percent |
| <b>Carroll County</b>  |         |         |         |         |                   |         |
| Hispanic               | 4,363   | 2.6%    | 7,114   | 4.1%    | 2,751             | 63.1%   |
| White                  | 155,282 | 91.2%   | 151,700 | 87.8%   | -3,582            | -2.3%   |
| Black/African American | 5,332   | 3.1%    | 6,499   | 3.8%    | 1,167             | 21.9%   |
| American Indian        | 328     | 0.2%    | 313     | 0.2%    | -15               | -4.6%   |
| Asian                  | 2,418   | 1.4%    | 3,595   | 2.1%    | 1,177             | 48.7%   |
| Pacific Islander       | 56      | 0.0%    | 124     | 0.1%    | 68                | 121.4%  |
| Two or more races      | 2,519   | 1.5%    | 3,374   | 2.0%    | 855               | 33.9%   |
| Total                  | 170,298 |         | 172,874 |         |                   |         |

TABLE 9: RACE AND ETHNICITY DISTRIBUTION IN THE BMC REGION, 2010-2020

|                        | 2010      |         | 2020      |         | Change, 2010-2020 |         |
|------------------------|-----------|---------|-----------|---------|-------------------|---------|
|                        | Number    | Percent | Number    | Percent | Number            | Percent |
| <b>BMC Region</b>      |           |         |           |         |                   |         |
| Hispanic               | 125,709   | 4.5%    | 189,176   | 6.5%    | 63,467            | 50.5%   |
| White                  | 1,732,228 | 62.7%   | 1,601,700 | 55.4%   | -130,528          | -7.5%   |
| Black/African American | 781,865   | 28.3%   | 839,847   | 29.0%   | 57,982            | 7.4%    |
| American Indian        | 8,662     | 0.3%    | 7,035     | 0.2%    | -1,627            | -18.8%  |
| Asian                  | 123,539   | 4.5%    | 173,249   | 6.0%    | 49,710            | 40.2%   |
| Pacific Islander       | 1,503     | 0.1%    | 1,449     | 0.1%    | -54               | -3.6%   |
| Two or more races      | 69,011    | 2.5%    | 76,230    | 2.6%    | 7,219             | 10.5%   |
| Total                  | 2,763,799 |         | 2,893,368 |         |                   |         |

FIGURE 6: NEW WINDSOR RACE DEMOGRAPHICS, 2020

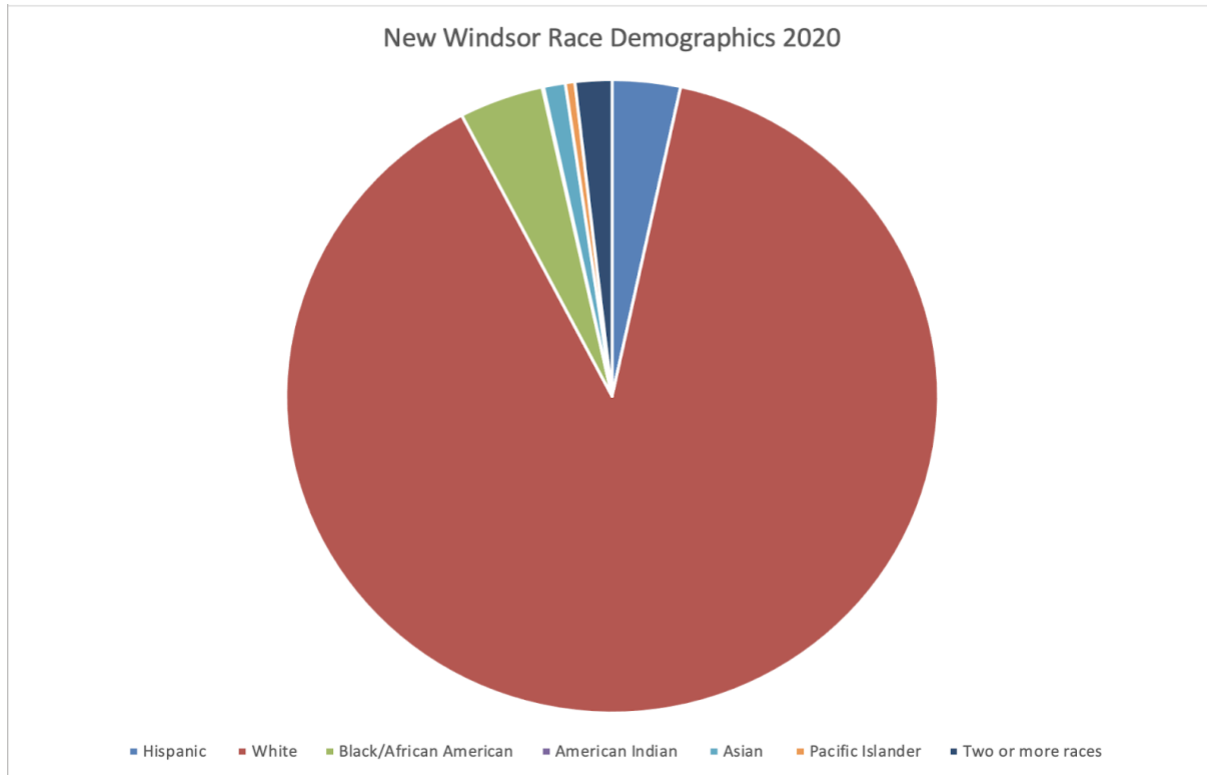


FIGURE 7: CARROLL COUNTY RACE DEMOGRAPHICS, 2020

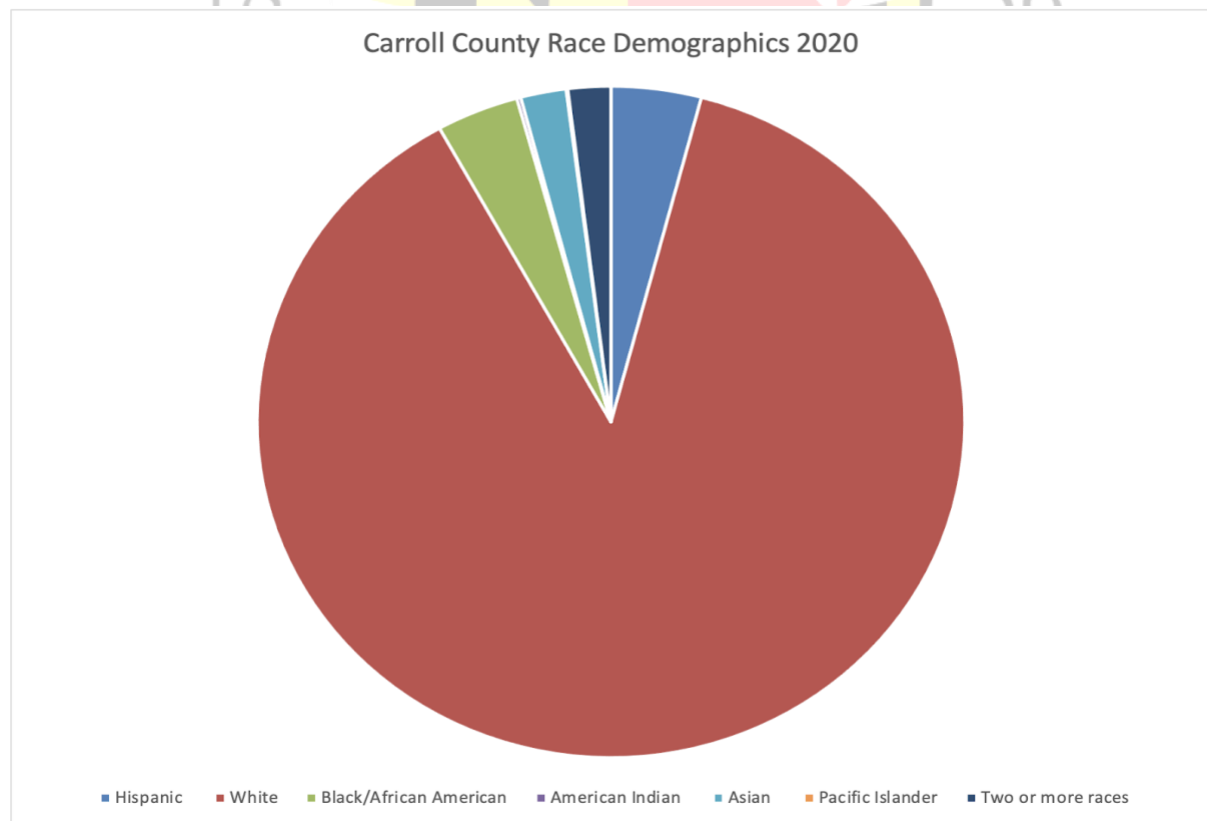
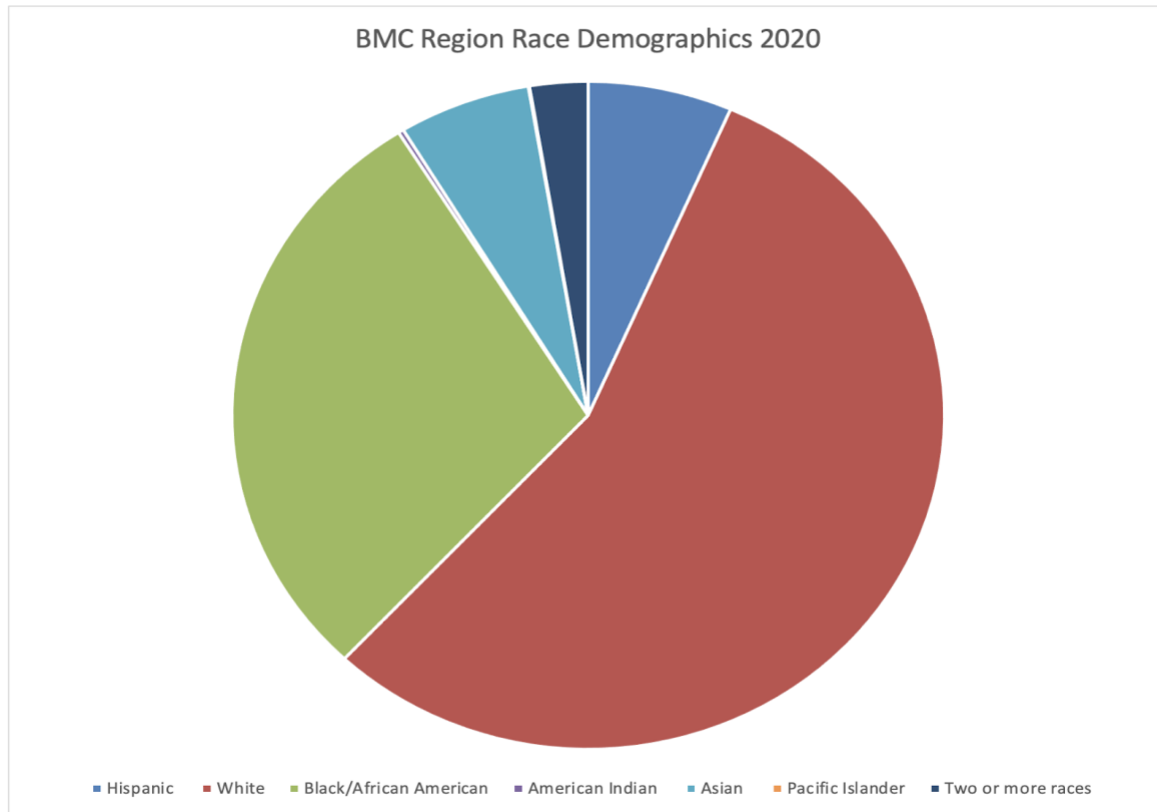


FIGURE 8: BMC REGION RACE DEMOGRAPHICS, 2020



#### INCOME

Carroll County and the Baltimore region have seen an increase in median income. This is especially true of Carroll County, which saw a significant increase. This growth suggests an opportunity for New Windsor; it might leverage Carroll County's increase to attract higher-income earners by offering products tailored to this group.

Between 2010 and 2020, New Windsor saw a 3% decrease in median income. Meanwhile, Carroll County saw a 20% increase in its median income and the Baltimore region saw a 7% increase. Nevertheless, New Windsor remains quite affluent; income earners in the \$100,000-\$149,000 bracket are the town's largest cohort.

The decrease in New Windsor's median income suggests that the town is an outlier relative to its surrounding regions and presents an opportunity to capture the higher income earners in Carroll County. If New Windsor offers a product tailored to the higher-income cohort, the town can capture a significant proportion of this demographic, thereby benefiting from an increased population that has higher spending power. Furthermore, the decrease in the town's median income may be due to the increase in the senior population, as this population often has a limited income.

TABLE 10: CATEGORICAL INCOME DISTRIBUTION, 2020

| Categorical Incomes   | New Windsor |         | Carroll County |         | BMC     |         |
|-----------------------|-------------|---------|----------------|---------|---------|---------|
|                       | Number      | Percent | Number         | Percent | Number  | Percent |
| Less than \$15,000    | 43          | 7.6%    | 3,774          | 6.1%    | 97,692  | 8.9%    |
| \$15,000 - \$24,999   | 21          | 3.7%    | 3,060          | 4.9%    | 65,108  | 5.9%    |
| \$25,000 - \$34,999   | 33          | 5.8%    | 3,174          | 5.1%    | 64,710  | 5.9%    |
| \$35,000 - \$49,999   | 61          | 10.7%   | 4,801          | 7.7%    | 109,618 | 9.9%    |
| \$50,000 - \$74,999   | 95          | 16.7%   | 8,311          | 13.4%   | 173,020 | 15.7%   |
| \$75,000 - \$99,999   | 117         | 20.6%   | 8,431          | 13.6%   | 144,850 | 13.1%   |
| \$100,000 - \$149,000 | 125         | 22.0%   | 14,329         | 23.1%   | 203,742 | 18.5%   |
| \$150,000 - \$199,999 | 41          | 7.2%    | 8,747          | 14.1%   | 112,618 | 10.2%   |
| \$200,000 or greater  | 33          | 5.8%    | 7,498          | 12.1%   | 131,237 | 11.9%   |

2010 Source: ACS | 2020 Source: Esri Business Analyst

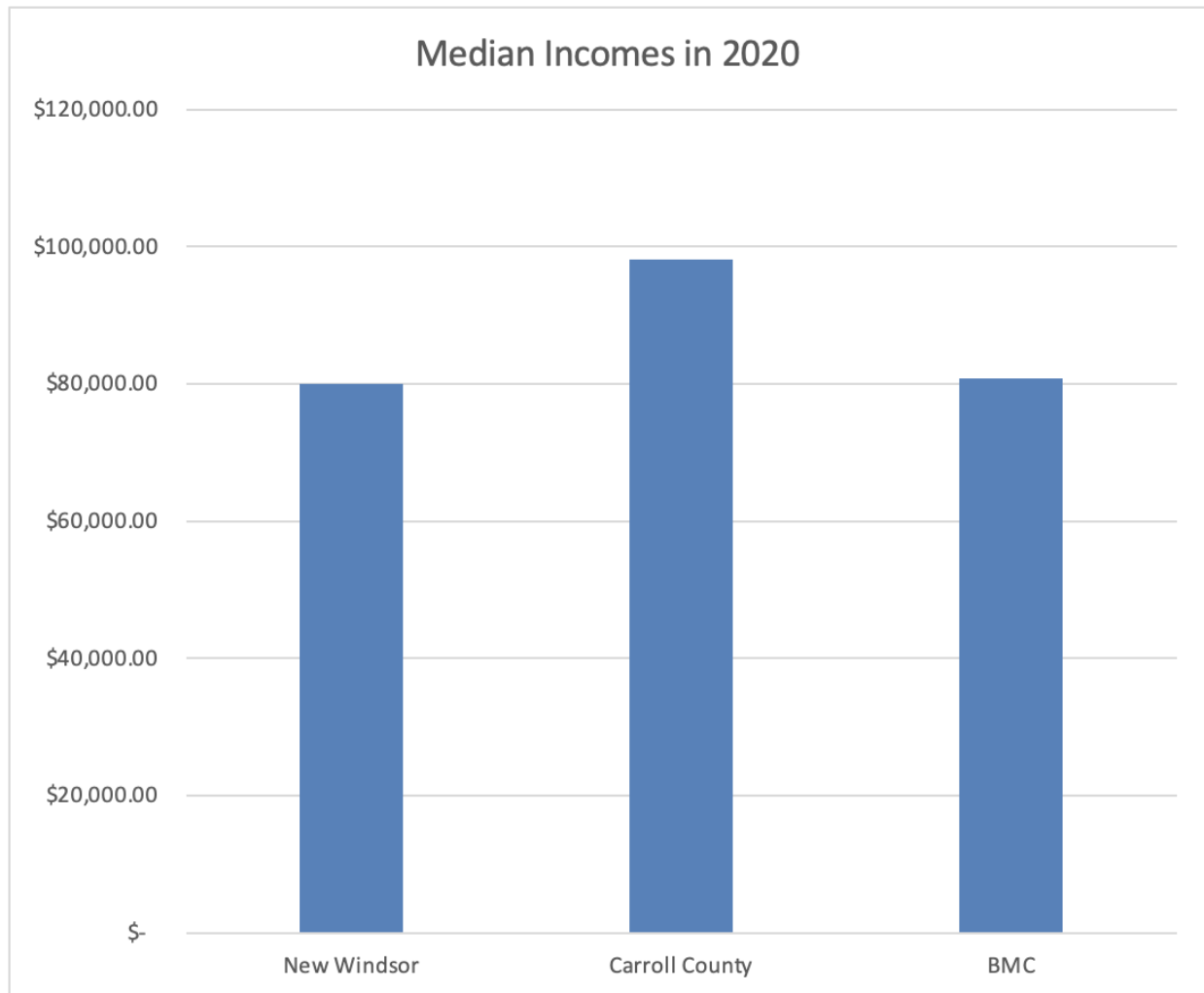
| Median Incomes | 2010      |         | 2020      |         | Change, 2010-2020 |         |
|----------------|-----------|---------|-----------|---------|-------------------|---------|
|                | Number    | Percent | Number    | Percent | Number            | Percent |
| New Windsor    | \$ 82,841 |         | \$ 80,063 |         | \$ (2,778)        | -3.4%   |
| Carroll County | \$ 81,621 |         | \$ 98,145 |         | \$ 16,524         | 20.2%   |
| BMC            | \$ 75,686 |         | \$ 80,750 |         | \$ 5,064          | 6.7%    |

FIGURE 9: INCOME DISTRIBUTION IN NEW WINDSOR, 2020



TABLE 11: MEDIAN INCOMES, 2010-2020

FIGURE 10: MEDIAN INCOMES, 2020





## VACANCY

New Windsor saw a relatively high increase in renter-occupied units over the past ten years, while also seeing an increase in the number of vacant properties.

Between 2010 and 2020, the proportion of occupied households in New Windsor grew by 8%, while the proportion of renter-occupied households grew at 24%, suggesting a significant increase in the number of residents renting out their housing for additional income. Meanwhile, the number of vacant properties increased by 15%, less than the rate increase in Carroll County (20%) and slightly higher than in the Baltimore region (12%).

The relatively high renter-occupied population suggests that residents are seeking additional income. However, the increased vacancy rate is not a major concern; similar trends are seen in Carroll County and the Baltimore region. It's important to note that these growth projections don't consider vacant properties. All housing units are expected to be filled. Therefore, estimates of the number of housing units needed to be built may be low.

TABLE 12: VACANT PROPERTIES IN NEW WINDSOR, 2010-2020

| New Windsor     | 2010   |         | 2020   |         | Change, 2010-2020 |         |
|-----------------|--------|---------|--------|---------|-------------------|---------|
|                 | Number | Percent | Number | Percent | Number            | Percent |
| <b>Occupied</b> | 526    | 92.9%   | 569    | 92.5%   | 43                | 8.2%    |
| Owner-Occupied  | 392    | 69.3%   | 402    | 65.4%   | 10                | 2.6%    |
| Renter-Occupied | 134    | 23.7%   | 167    | 27.2%   | 33                | 24.6%   |
| <b>Vacant</b>   | 40     | 7.1%    | 46     | 7.5%    | 6                 | 15.0%   |
| <b>Total</b>    | 566    |         | 615    |         | 49                | 8.66%   |

2010 Data: ACS

2020 Data: Esri Business Analyst

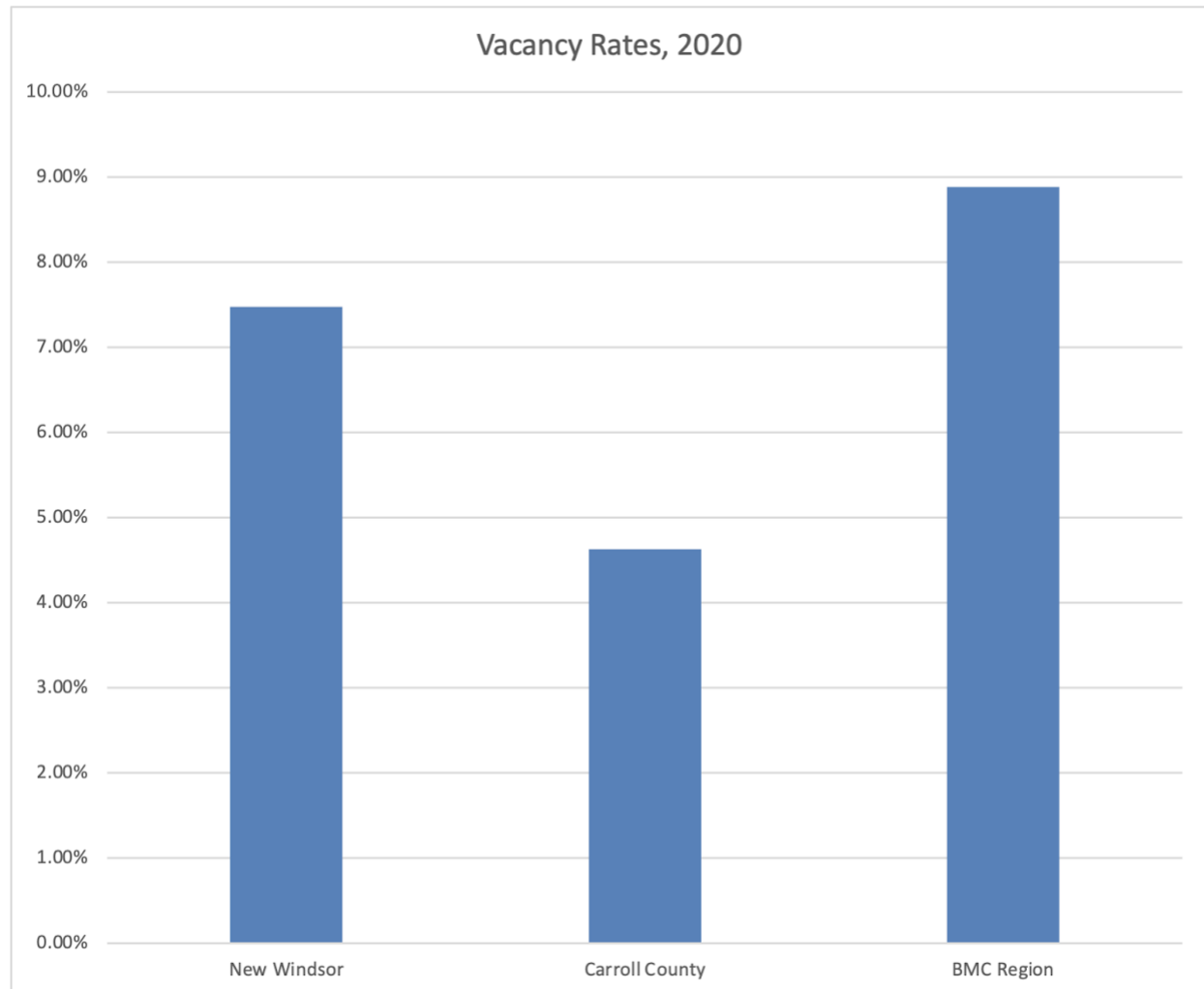
TABLE 13: VACANT PROPERTIES IN CARROLL COUNTY, 2010-2020

| Carroll County  | 2010   |         | 2020   |         | Change, 2010-2020 |         |
|-----------------|--------|---------|--------|---------|-------------------|---------|
|                 | Number | Percent | Number | Percent | Number            | Percent |
| <b>Occupied</b> | 59,786 | 95.8%   | 62,125 | 95.4%   | 2,339             | 3.9%    |
| Owner-Occupied  | 49,028 | 78.6%   | 49,182 | 75.5%   | 154               | 0.3%    |
| Renter-Occupied | 10,758 | 17.2%   | 12,943 | 19.9%   | 2,185             | 20.3%   |
| <b>Vacant</b>   | 2,620  | 4.2%    | 3,017  | 4.6%    | 397               | 15.2%   |
| <b>Total</b>    | 62,406 |         | 65,142 |         | 2,736             | 4.38%   |

TABLE 14: VACANT PROPERTIES IN THE BMC REGION, 2010-2020

| BMC Region             | 2010      |         | 2020      |         | Change, 2010-2020 |         |
|------------------------|-----------|---------|-----------|---------|-------------------|---------|
|                        | Number    | Percent | Number    | Percent | Number            | Percent |
| <b>Occupied</b>        | 1,057,616 | 91.7%   | 1,102,659 | 91.1%   | 45,043            | 4.3%    |
| <b>Owner-Occupied</b>  | 703,815   | 61.0%   | 737,206   | 60.9%   | 33,391            | 4.7%    |
| <b>Renter-Occupied</b> | 353,801   | 30.7%   | 365,453   | 30.2%   | 11,652            | 3.3%    |
| <b>Vacant</b>          | 95,598    | 8.3%    | 107,527   | 8.9%    | 11,929            | 12.5%   |
| <b>Total</b>           | 1,153,214 |         | 1,210,186 |         | 56,972            | 4.94%   |

FIGURE 11: VACANCY RATES, 2020



## TENURE

Between the years of 2010 and 2020, New Windsor saw a significant increase in the number of family households. In fact, every new household that moved to New Windsor in that ten-year period was a family household.

In 2010, family households comprised 69% of total households, which increased in 2020 to 72%. However, all 43 added households in this ten-year period were family households. This rate of growth in family households is far higher than in Carroll County or the Baltimore region.

This significant growth suggests New Windsor has features attractive to families. The town can capitalize on this finding to deliver products tailored to families, helping increase this population demographic.

TABLE 15: TENURE IN NEW WINDSOR, 2010-2020

| New Windsor          | 2010   |         | 2020   |         | Change, 2010-2020 |         |
|----------------------|--------|---------|--------|---------|-------------------|---------|
|                      | Number | Percent | Number | Percent | Number            | Percent |
| Family Households    | 364    | 69.2%   | 410    | 72.1%   | 46                | 12.6%   |
| Nonfamily Households | 162    | 30.8%   | 159    | 27.9%   | -3                | -1.9%   |
| Total Households     | 526    |         | 569    |         | 43                | 8.2%    |

2010 Data: ACS

2020 Data: Esri

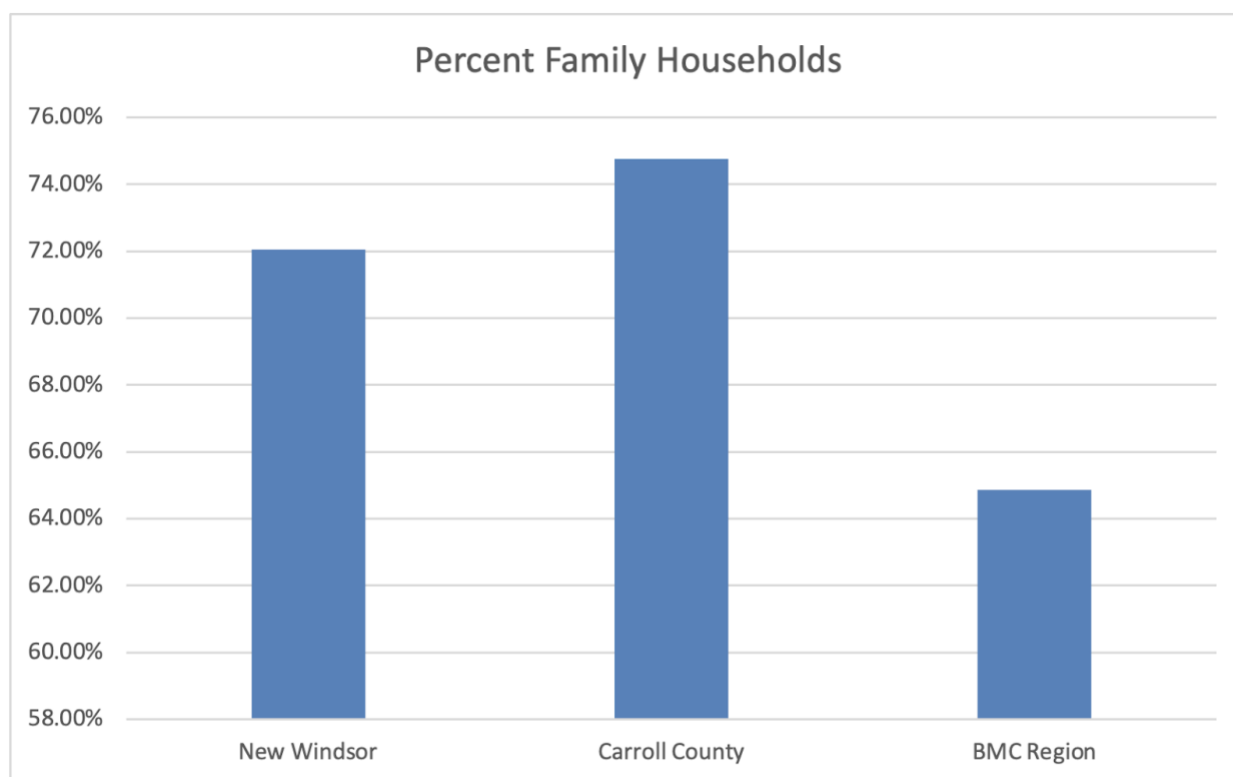
TABLE 16: TENURE IN CARROLL COUNTY, 2010-2020

| Carroll County       | 2010   |         | 2020   |         | Change, 2010-2020 |         |
|----------------------|--------|---------|--------|---------|-------------------|---------|
|                      | Number | Percent | Number | Percent | Number            | Percent |
| Family Households    | 45,163 | 75.5%   | 46,443 | 74.8%   | 1,280             | 2.8%    |
| Nonfamily Households | 14,623 | 24.5%   | 15,682 | 25.2%   | 1,059             | 7.2%    |
| Total Households     | 59,786 |         | 62,125 |         | 2,339             | 3.9%    |

TABLE 17: TENURE IN THE BMC REGION, 2010-2020

| BMC Region           | 2010      |         | 2020      |         | Change, 2010-2020 |         |
|----------------------|-----------|---------|-----------|---------|-------------------|---------|
|                      | Number    | Percent | Number    | Percent | Number            | Percent |
| Family Households    | 692,925   | 65.5%   | 715,280   | 64.9%   | 22,355            | 3.2%    |
| Nonfamily Households | 364,691   | 34.5%   | 387,379   | 35.1%   | 22,688            | 6.2%    |
| Total Households     | 1,057,616 |         | 1,102,659 |         | 45,043            | 4.3%    |

FIGURE 12: PERCENT FAMILY HOUSEHOLDS, 2020



#### YEAR BUILT

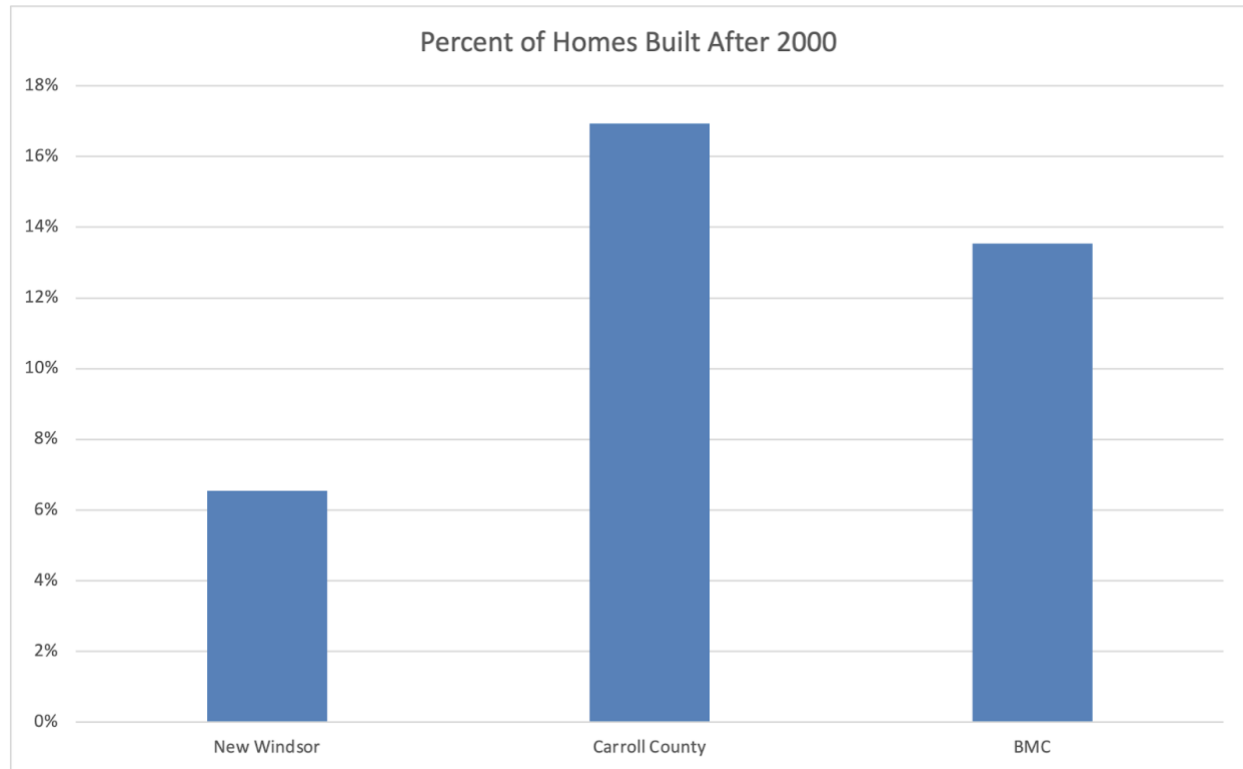
New Windsor saw relatively high rates of housing development in the 1960s and 1990s. The number of homes built between 2000 and 2009 was 6% of the total housing units, lower than the rate in Carroll County (14%) and the Baltimore region (10%). Of percent of houses built in New Windsor between 2010 and 2013 was 0.37%, while no new homes were built in 2014 or later.

**TABLE 18: YEAR BUILT**

| Year Built          | New Windsor |         | Carroll County |         | BMC Region |         |
|---------------------|-------------|---------|----------------|---------|------------|---------|
|                     | Number      | Percent | Number         | Percent | Number     | Percent |
| 1939 or earlier     | 218         | 40.7%   | 7,149          | 11.3%   | 194,684    | 16.5%   |
| 1940-1949           | 19          | 3.6%    | 1,500          | 2.4%    | 72,829     | 6.2%    |
| 1950-1959           | 6           | 1.1%    | 3,846          | 6.1%    | 152,430    | 12.9%   |
| 1960-1969           | 54          | 10.1%   | 5,046          | 8.0%    | 120,483    | 10.2%   |
| 1970-1979           | 4           | 0.7%    | 12,175         | 19.2%   | 152,884    | 13.0%   |
| 1980-1989           | 18          | 3.4%    | 11,573         | 18.3%   | 162,326    | 13.8%   |
| 1990-1999           | 181         | 33.8%   | 11,376         | 17.9%   | 162,167    | 13.8%   |
| 2000-2009           | 33          | 6.2%    | 9,028          | 14.2%   | 116,402    | 9.9%    |
| 2010 - 2013         | 2           | 0.4%    | 1,161          | 1.8%    | 28,074     | 2.4%    |
| 2014 or later       | 0           | 0.0%    | 545            | 0.9%    | 14,990     | 1.3%    |
| Total Housing Units | 535         |         | 63,399         |         | 1,177,269  |         |

Source: American Census Survey 5 year 2014-2019; University of Maryland 2021

FIGURE 13: PERCENT OF HOMES BUILT AFTER 2000



18

56

#### SINGLE-FAMILY HOME SALES

The trend in single-family home sales indicates that families are moving to New Windsor at rates higher than other groups and find the town appealing.

Most single-family homes sold in New Windsor between 2019 and 2021 featured four bedrooms or more, with a median sale price of \$450,000.

Larger units seem to be more popular among residents. Larger properties at similar prices should be the target, as the town can capitalize on family households moving to the town by offering larger products tailored to their needs.

TABLE 19: SINGLE-FAMILY HOUSE SALE PRICES IN NEW WINDSOR, MARCH 2019-MARCH 2021



| Sales Price Range        | 1 Bedroom  | 2 Bedrooms | 3 Bedrooms | 4+ Bedrooms | Total      | Percent of total |
|--------------------------|------------|------------|------------|-------------|------------|------------------|
| Less than \$200,000      | 1          | 1          | 8          | 3           | 13         | 8.39%            |
| \$200,000-\$399,999      | 1          | 8          | 47         | 28          | 84         | 54.19%           |
| \$400,000-\$599,999      | 0          | 0          | 11         | 31          | 42         | 27.10%           |
| \$600,000 or more        | 0          | 0          | 1          | 15          | 16         | 10.32%           |
| Total                    | 2          | 9          | 67         | 77          | 155        | 100%             |
| Percent of total (%)     | 1.29%      | 5.81%      | 43.23%     | 49.68%      | 100.00%    |                  |
| Median Sale Price (\$)   | \$ 193,250 | \$ 280,000 | \$ 320,000 | \$ 450,000  | \$ 348,000 |                  |
| Average Sale Price (\$)  | \$ 193,250 | \$ 277,611 | \$ 336,310 | \$ 464,108  | \$ 385,739 |                  |
| Average Unit Size (SF)   | \$ 625     | \$ 1,593   | \$ 1,890   | \$ 3,002    | \$ 2,394   |                  |
| Median Price per SF(\$)  | \$ 309     | \$ 192     | \$ 177     | \$ 158      | \$ 170     |                  |
| Average Price per SF(\$) | \$ 309     | \$ 187     | \$ 179     | \$ 159      | \$ 173     |                  |

Single family home sale price distribution, New Windsor March 2019-March 2021 - Source: Redfin; University of Maryland 2021

FIGURE 14: AVERAGE PRICE PER SF (\$)



## TOWNHOUSE SALES

In a methodology similar to single-family home sales, we analyzed the town's townhouse sale price distribution between March 2019 and March 2021, using data from Redfin. This information was split by sale price range, as well as the size of each unit sold, with analysis of the median sale price, average sale price, average unit size in square feet, median price per square foot, and average price per square foot.

Townhouse sales in New Windsor saw a relatively high proportion of three-bedroom properties sold at a median price of \$361,745, though overall figures are quite low.

TABLE 20: SALE PRICE RANGES FOR APARTMENTS IN NEW WINDSOR, MARCH 2019-MARCH 2021

| Sales Price Range        | 1 Bedroom  | 2 Bedrooms | 3 Bedrooms | 4+ Bedrooms | Total      | Percent of total |
|--------------------------|------------|------------|------------|-------------|------------|------------------|
| Less than \$200,000      | 1          | 6          | 0          | 1           | 8          | 38.10%           |
| \$200,000-\$399,999      | 0          | 2          | 9          | 1           | 12         | 57.14%           |
| \$400,000-\$599,999      | 0          | 0          | 1          | 0           | 1          | 4.76%            |
| \$600,000 or more        | 0          | 0          | 0          | 0           | 0          | 0.00%            |
| Total                    | 1          | 8          | 10         | 2           | 21         | 100.00%          |
| Percent of total (%)     | 4.76%      | 38.10%     | 47.62%     | 9.52%       | 100.00%    |                  |
| Median Sale Price (\$)   | \$ 150,000 | \$ 196,000 | \$ 361,745 | \$ 296,200  | \$ 324,990 |                  |
| Average Sale Price (\$)  | \$ 150,000 | \$ 224,998 | \$ 358,144 | \$ 296,200  | \$ 291,610 |                  |
| Average Unit Size (SF)   | \$ 971     | \$ 1,111   | \$ 1,111   | \$ 3,330    | \$ 1,813   |                  |
| Median Price per SF(\$)  | \$ 154     | \$ 202     | \$ 167     | \$ 88       | \$ 172     |                  |
| Average Price per SF(\$) | \$ 154     | \$ 199     | \$ 167     | \$ 88       | \$ 171     |                  |

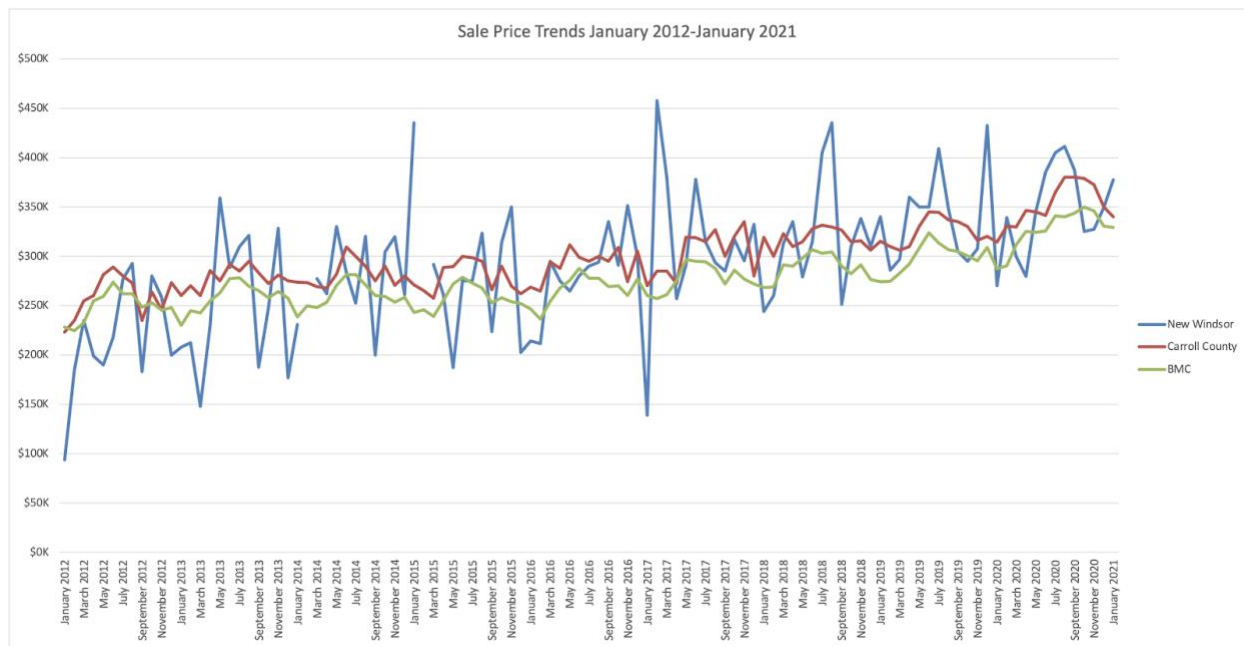
Apartment sale price distribution, New Windsor March 2019-March 2021 - Source: Redfin

## SALE PRICE TRENDS

The sale price trends for New Windsor, Carroll County, and the Baltimore region all saw a consistent upward trend in real estate prices. All three areas have generally increased, swapping prices but generally moving in the same upward trajectory.

**FIGURE 15: SALE PRICE TRENDS, JANUARY 2012-JANUARY 2021**

Source: Data obtained from Redfin, 2012-2021 Monthly

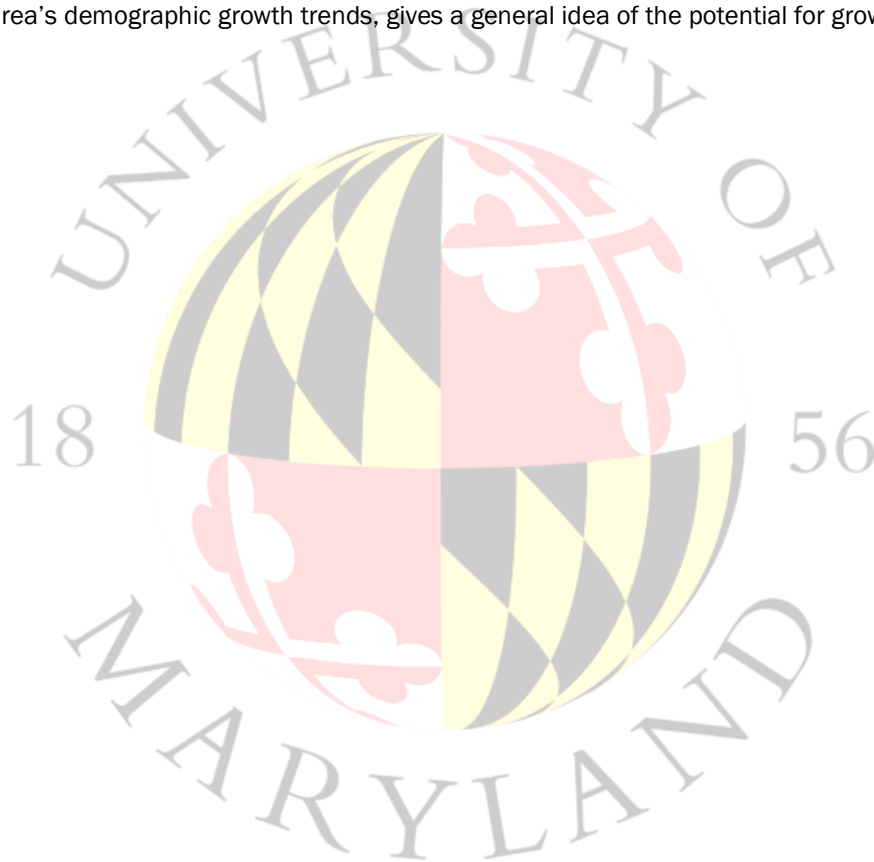


## PROJECTION METHODOLOGIES

This report analyzes demographic trends in New Windsor using data drawn from Esri. Projected growth rates in population, households, and average household size were provided by the Baltimore Metropolitan Council and Maryland Department of Planning (MDP).

Data describing New Windsor compared to Carroll County and the Baltimore region provide context for the report, and a sense of scale for trends in the area. For 25-year projections in the Baltimore region, Carroll County, and New Windsor, we calculated the estimated growth rates in traffic analysis zones (TAZ), specifically TAZ1032, TAZ1033, Carroll County, and Baltimore region using BMC and MDP projections, then applied those growth rates to 2020 estimates for population, households, and average household size obtained from Esri. For the estimated growth rate of New Windsor, we used TAZ-level data from BMC because it doesn't provide town-level projections and New Windsor is part of TAZ1032 and TAZ1033.

Evaluating the area's demographic growth trends, gives a general idea of the potential for growth in New Windsor.



## DEMOGRAPHIC PROJECTIONS

For demographic projections, we have five projections from BMC and MDP. BMC projections include all town, county, and region levels, but our town level projection is based on TAZ1032 and TAZ1033 because there is no projection for New Windsor. Data from TAZ1032 and TAZ1033 was used to make the projections for town level since New Windsor is part of those zones. MDP projections only cover the county and region.

### BALTIMORE METROPOLITAN COUNCIL PROJECTIONS

The BMC projects a 9.0% growth rate for the Baltimore region's population from 2020-2045, with the number of households growing by 11.5%, and the average household size decreasing by 2.2%. The BMC projects a 9.4% growth rate for Carroll County's population from 2020-2045, with the number of households growing by 12.2%, and average household size decreasing by 2.5%.

The BMC's projection growth rate for New Windsor's population from 2020-2045 is 3.5%, with the number of households growing by 7.2%, and average household size decreasing by 3.5%. New Windsor's population, households, and average household size growth rates are slower than both Carroll County and the Baltimore region. The County's population and household growth rate are faster than the Baltimore region, but its growth rate for average household size is slower than the Baltimore region.

| <b>Baltimore<br/>Region</b> | <b>2020</b>      | <b>2025</b>      | <b>2030</b>      | <b>2035</b>      | <b>2040</b>      | <b>2045</b>      | <b>Overall<br/>2020-2045</b> |
|-----------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------------------|
| <b>Population</b>           | <b>2,893,368</b> | <b>2,957,985</b> | <b>3,007,593</b> | <b>3,063,346</b> | <b>3,120,068</b> | <b>3,154,845</b> | <b>261,477</b>               |
| % Change                    |                  |                  |                  |                  |                  |                  |                              |
| Overall                     |                  | 2.2%             | 1.7%             | 1.9%             | 1.9%             | 1.1%             | 9.0%                         |
| Avg. Annual                 |                  | 0.4%             | 0.3%             | 0.4%             | 0.4%             | 0.2%             | 0.3%                         |
| <b>Households</b>           | <b>1,102,659</b> | <b>1,137,231</b> | <b>1,165,488</b> | <b>1,194,504</b> | <b>1,216,181</b> | <b>1,229,435</b> | <b>126,776</b>               |
| % Change                    |                  |                  |                  |                  |                  |                  |                              |
| Overall                     |                  | 3.1%             | 2.5%             | 2.5%             | 1.8%             | 1.1%             | 11.5%                        |
| Avg. Annual                 |                  | 0.6%             | 0.5%             | 0.5%             | 0.4%             | 0.2%             | 0.4%                         |
| <b>Household Size</b>       | <b>2.62</b>      | <b>2.60</b>      | <b>2.58</b>      | <b>2.56</b>      | <b>2.57</b>      | <b>2.57</b>      | <b>-0.06</b>                 |
| % Change                    |                  |                  |                  |                  |                  |                  |                              |
| Overall                     |                  | -0.9%            | -0.8%            | -0.6%            | 0.0%             | 0.0%             | -2.2%                        |
| Avg. Annual                 |                  | -0.2%            | -0.2%            | -0.1%            | 0.0%             | 0.0%             | -0.1%                        |

| <b>Carroll County</b> | <b>2020</b>    | <b>2025</b>    | <b>2030</b>    | <b>2035</b>    | <b>2040</b>    | <b>Overall</b> |                  |
|-----------------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|
|                       |                |                |                |                |                | <b>2045</b>    | <b>2020-2045</b> |
| <b>Population</b>     | <b>172,874</b> | <b>175,428</b> | <b>178,953</b> | <b>182,376</b> | <b>185,748</b> | <b>189,170</b> | <b>16,296</b>    |
| % Change              |                |                |                |                |                |                |                  |
| Overall               |                | 1.5%           | 2.0%           | 1.9%           | 1.8%           | 1.8%           | 9.4%             |
| Avg. Annual           |                | 0.3%           | 0.4%           | 0.4%           | 0.4%           | 0.4%           | 0.4%             |
| <b>Households</b>     | <b>62,125</b>  | <b>63,837</b>  | <b>65,946</b>  | <b>67,387</b>  | <b>68,520</b>  | <b>69,723</b>  | <b>7,598</b>     |
| % Change              |                |                |                |                |                |                |                  |
| Overall               |                | 2.8%           | 3.3%           | 2.2%           | 1.7%           | 1.8%           | 12.2%            |
| Avg. Annual           |                | 0.5%           | 0.7%           | 0.4%           | 0.3%           | 0.3%           | 0.5%             |
| <b>Household Size</b> | <b>2.78</b>    | <b>2.75</b>    | <b>2.71</b>    | <b>2.71</b>    | <b>2.71</b>    | <b>2.71</b>    | <b>-0.07</b>     |
| % Change              |                |                |                |                |                |                |                  |
| Overall               |                | -1.2%          | -1.3%          | -0.3%          | 0.2%           | 0.1%           | -2.5%            |
| Avg. Annual           |                | -0.3%          | -0.3%          | -0.1%          | 0.0%           | 0.0%           | -0.1%            |



| <b>New Windsor</b>    | <b>2020</b>  | <b>2025</b>  | <b>2030</b>  | <b>2035</b>  | <b>2040</b>  | <b>Overall</b> |                  |
|-----------------------|--------------|--------------|--------------|--------------|--------------|----------------|------------------|
|                       |              |              |              |              |              | <b>2045</b>    | <b>2020-2045</b> |
| <b>Population</b>     | <b>1,482</b> | <b>1,481</b> | <b>1,487</b> | <b>1,499</b> | <b>1,506</b> | <b>1,534</b>   | <b>52</b>        |
| % Change              |              |              |              |              |              |                |                  |
| Overall               |              | -0.1%        | 0.4%         | 0.8%         | 0.5%         | 1.8%           | 3.9%             |
| Avg. Annual           |              | 0.0%         | 0.1%         | 0.2%         | 0.1%         | 0.4%           | 0.2%             |
| <b>Households</b>     | <b>569</b>   | <b>576</b>   | <b>589</b>   | <b>595</b>   | <b>600</b>   | <b>610</b>     | <b>41</b>        |
| % Change              |              |              |              |              |              |                |                  |
| Overall               |              | 1.2%         | 2.2%         | 1.1%         | 0.8%         | 1.8%           | 7.2%             |
| Avg. Annual           |              | 0.2%         | 0.4%         | 0.2%         | 0.2%         | 0.3%           | 0.3%             |
| <b>Household Size</b> | <b>2.60</b>  | <b>2.57</b>  | <b>2.53</b>  | <b>2.52</b>  | <b>2.51</b>  | <b>2.51</b>    | <b>-0.09</b>     |
| % Change              |              |              |              |              |              |                |                  |
| Overall               |              | -1.3%        | -1.7%        | -0.3%        | -0.3%        | 0.1%           | -3.5%            |
| Avg. Annual           |              | -0.3%        | -0.3%        | -0.1%        | -0.1%        | 0.0%           | -0.1%            |

Source: 2020 Data Sourced from Esri

#### MARYLAND DEPARTMENT OF PLANNING PROJECTIONS

MDP projects an 8.7% growth rate for the Baltimore region's population from 2020-2045, with the number of households growing by 10.3%, and average household size decreasing by 1.9%. Its projects a 9.0% growth rate for Carroll County's population from 2020-2045, with the number of households growing by 11.0%, and average household size decreasing by 3.0%. Carroll County's population, household's growth rates are faster than the Baltimore region, but its growth rate for average household size is slower.



| <b>Baltimore Region</b> | <b>2020</b>      | <b>2025</b>      | <b>2030</b>      | <b>2035</b>      | <b>2040</b>      | <b>Overall</b>   |                  |
|-------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|                         |                  |                  |                  |                  |                  | <b>2045</b>      | <b>2020-2045</b> |
| <b>Population</b>       | <b>2,893,368</b> | <b>2,947,195</b> | <b>2,999,619</b> | <b>3,052,326</b> | <b>3,104,195</b> | <b>3,143,697</b> | <b>250,329</b>   |
| % Change                |                  |                  |                  |                  |                  |                  |                  |
| Overall                 |                  | 1.9%             | 1.8%             | 1.8%             | 1.7%             | 1.3%             | 8.7%             |
| Avg. Annual             |                  | 0.4%             | 0.4%             | 0.3%             | 0.3%             | 0.3%             | 0.3%             |
| <b>Households</b>       | <b>1,102,659</b> | <b>1,129,494</b> | <b>1,157,963</b> | <b>1,181,319</b> | <b>1,199,402</b> | <b>1,216,694</b> | <b>114,035</b>   |
| % Change                |                  |                  |                  |                  |                  |                  |                  |
| Overall                 |                  | 2.4%             | 2.5%             | 2.0%             | 1.5%             | 1.4%             | 10.3%            |
| Avg. Annual             |                  | 0.5%             | 0.5%             | 0.4%             | 0.3%             | 0.3%             | 0.4%             |
| <b>Household Size</b>   | <b>2.56</b>      | <b>2.55</b>      | <b>2.53</b>      | <b>2.52</b>      | <b>2.52</b>      | <b>2.51</b>      | <b>-0.05</b>     |
| % Change                |                  |                  |                  |                  |                  |                  |                  |
| Overall                 |                  | -0.4%            | -0.8%            | -0.4%            | 0.0%             | -0.4%            | -1.9%            |
| Avg. Annual             |                  | -0.1%            | -0.2%            | -0.1%            | 0.0%             | -0.1%            | -0.1%            |



| <b>Carroll County</b> | <b>2020</b>    | <b>2025</b>    | <b>2030</b>    | <b>2035</b>    | <b>2040</b>    | <b>Overall</b> |                  |
|-----------------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|
|                       |                |                |                |                |                | <b>2045</b>    | <b>2020-2045</b> |
| <b>Population</b>     | <b>172,874</b> | <b>175,636</b> | <b>178,142</b> | <b>181,559</b> | <b>184,944</b> | <b>188,371</b> | <b>15,497</b>    |
| % Change              |                |                |                |                |                |                |                  |
| Overall               |                | 1.6%           | 1.4%           | 1.9%           | 1.9%           | 1.9%           | 9.0%             |
| Avg. Annual           |                | 0.3%           | 0.3%           | 0.4%           | 0.4%           | 0.4%           | 0.3%             |
| <b>Households</b>     | <b>62,125</b>  | <b>64,163</b>  | <b>65,604</b>  | <b>66,697</b>  | <b>67,617</b>  | <b>68,959</b>  | <b>6,834</b>     |
| % Change              |                |                |                |                |                |                |                  |
| Overall               |                | 3.3%           | 2.2%           | 1.7%           | 1.4%           | 2.0%           | 11.0%            |
| Avg. Annual           |                | 0.6%           | 0.4%           | 0.3%           | 0.3%           | 0.4%           | 0.4%             |
| <b>Household Size</b> | <b>2.78</b>    | <b>2.73</b>    | <b>2.71</b>    | <b>2.71</b>    | <b>2.71</b>    | <b>2.70</b>    | <b>-0.08</b>     |
| % Change              |                |                |                |                |                |                |                  |
| Overall               |                | -1.9%          | -0.8%          | 0.0%           | 0.0%           | -0.4%          | -3.0%            |
| Avg. Annual           |                | -0.4%          | -0.2%          | 0.0%           | 0.0%           | -0.1%          | -0.1%            |

Source: 2020 Data Sourced from Esri

## SCENARIOS

This report examines three growth scenarios for New Windsor from 2020 to 2045, which are based on BMC projected growth rates, for Carroll County and New Windsor's historical growth rates.

Using New Windsor's historical growth rates shows the most increase in numbers of households and population, increasing by 21.7% and 16.1% over the next 25 years. Using BMC's projected shows a minimal increase in both households and population, increasing 7.2% and 3.5% over the next 25 years.

In all three scenarios, growth rates for households are greater than those for population, which means the average household size in New Windsor will most likely get smaller in the future.

**TABLE 21: PROJECTED GROWTH SCENARIOS**

|                       |             |             |                   | Overall         | Avg.<br>Annual  |
|-----------------------|-------------|-------------|-------------------|-----------------|-----------------|
| <b>Scenario 1 (a)</b> | <b>2020</b> | <b>2045</b> | <b>Difference</b> | <b>% Change</b> | <b>% Change</b> |
| Households            | 569         | 610         | 41                | 7.2%            | 0.3%            |
| Population            | 1,482       | 1534        | 52                | 3.5%            | 0.1%            |
|                       |             |             |                   |                 |                 |
|                       |             |             |                   | Overall         | Avg.<br>Annual  |
| <b>Scenario 2 (b)</b> | <b>2020</b> | <b>2045</b> | <b>Difference</b> | <b>% Change</b> | <b>% Change</b> |
| Households            | 569         | 639         | 70                | 12.2%           | 0.5%            |
| Population            | 1,482       | 1622        | 140               | 9.4%            | 0.4%            |
|                       |             |             |                   |                 |                 |
|                       |             |             |                   | Overall         | Avg.<br>Annual  |
| <b>Scenario 3 (c)</b> | <b>2020</b> | <b>2045</b> | <b>Difference</b> | <b>% Change</b> | <b>% Change</b> |
| Households            | 569         | 693         | 124               | 21.7%           | 0.8%            |
| Population            | 1,482       | 1721        | 239               | 16.1%           | 0.6%            |

Note:

(a) Using BMC's projected growth rate for New Windsor to estimate the number of households and population for New Windsor from 2020-2045.

(b) Using BMC's projected growth rate for Carroll County to estimate the number of households and population for New Windsor from 2020-2045.

(c) Using the historic growth rate for New Windsor from 2010-2020 to estimate the number of households and population for New Windsor from 2020-2045.

## FISCAL IMPACT ANALYSIS OF GROWTH SCENARIOS

### METHODOLOGY

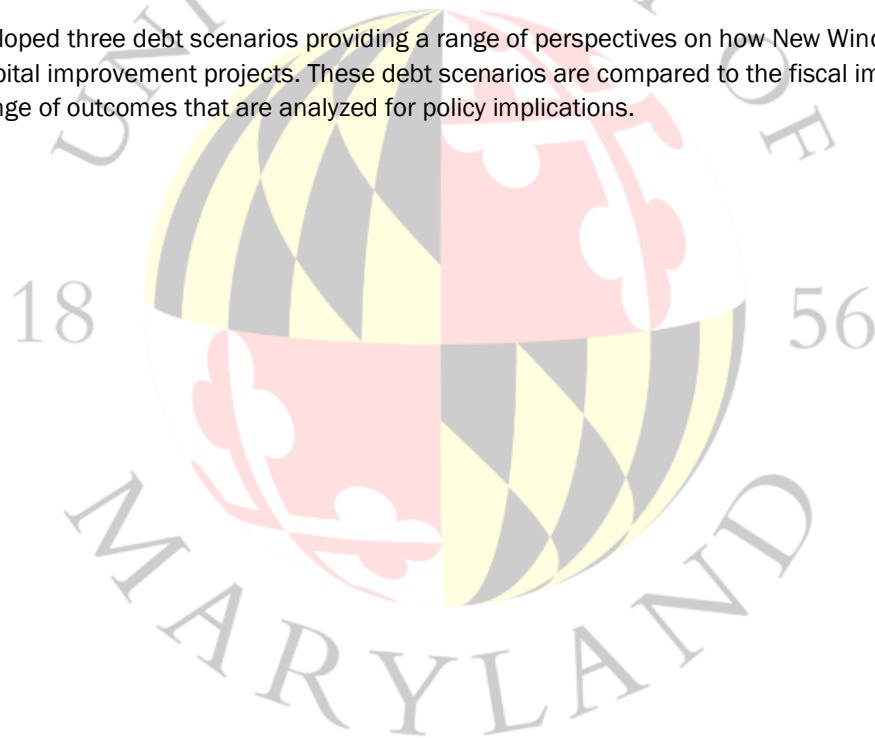
All the cost numbers used in the fiscal impact analysis are from the FY21 budget.

After all the possible costs were listed, we determined which ones were variable, that is those expected to increase as population and housing increase. Those aren't variable don't contribute to the costs we're examining for the fiscal impact of growth. After determining which costs were variable, we divided total costs by the number of households to determine an average cost per household for each budget category.

Most of the revenue projection figures also came from the budget, however it should be noted that we chose to use only residential tax. Some of the revenue sources required independent calculations. For example, water utility revenues were projected based on rates, fees, and average consumption.

We then applied the growth scenarios to the cost and revenue estimates to estimate their fiscal impact over the next 25 years.

Finally, we developed three debt scenarios providing a range of perspectives on how New Windsor can approach its capital improvement projects. These debt scenarios are compared to the fiscal impact scenarios, presenting a range of outcomes that are analyzed for policy implications.



## CAPITAL IMPROVEMENT PLAN

### CAPITAL IMPROVEMENTS IMPACT

New Windsor is considering a number of infrastructure improvements. The projects are ranked by priority in the chart below. The ranking shows the impact of the most important projects, as well as the impact of completing all the projects. The debt service per project is the monthly cost of paying back loans required to undertake these projects. All capital improvement projects were estimate at a 0.4% interest rate and calculated using the assumption that monthly payments would occur over 10 years.

| Name  | Loan Term (Years) | Payments per Year | Loan Amount  | Interest rate assumption | Debt Service per Project |
|---|-------------------|-------------------|--------------|--------------------------|--------------------------|
| Water System Evaluation (GMB's services)                            | 10                | 12                | \$75,000     | 0.40%                    | \$638                    |
| WL upgrade  | 10                | 12                | \$3,000,000  | 0.40%                    | \$25,507                 |
| Construction Management & Inspection                                | 10                | 12                | \$500,000    | 0.40%                    | \$4,251                  |
| WL upgrade engineering  | 10                | 12                | \$5,600      | 0.40%                    | \$48                     |
| elevated tank cleaning & maintenance                                | 10                | 12                | \$20,000     | 0.40%                    | \$170                    |
| hydrant flushing & repairs/ replacement (GMB's services)            | 10                | 12                | \$5,000      | 0.40%                    | \$43                     |
| WTP SCADA system upgrade  | 10                | 12                | \$5,000      | 0.40%                    | \$43                     |
| elevated pedestal tank - maint. & repairs (exterior)                | 10                | 12                | \$5,000      | 0.40%                    | \$43                     |
| WWTP upgrade  | 10                | 12                | \$1,250,000  | 0.40%                    | \$10,628                 |
| BR pump station upgrade- construction                               | 10                | 12                | \$200,000    | 0.40%                    | \$1,700                  |
| BR pump station upgrade - final design                              | 10                | 12                | \$45,000     | 0.40%                    | \$383                    |
| chlorination/contact tank - altitued valve R/R                      | 10                | 12                | \$15,000     | 0.40%                    | \$128                    |
| Dennings Well - controls phone modem, booster antenna               | 10                | 12                | \$10,000     | 0.40%                    | \$85                     |
| Hillside Well - #2 well evaluation & repairs                        | 10                | 12                | \$5,000      | 0.40%                    | \$43                     |
| Hillside Well - control panel reconfig. & transducer repair/replace | 10                | 12                | \$5,000      | 0.40%                    | \$43                     |
| manhole thermal ring protection (35 MH's)                           | 10                | 12                | \$10,000     | 0.40%                    | \$85                     |
| Main Spring WL Replacement  | 10                | 12                | \$5,000,000  | 0.40%                    | \$42,512                 |
| leak detection - yearly or as needed                                | 10                | 12                | \$2,000      | 0.40%                    | \$17                     |
| Total for Debt Service 1  |                   |                   | \$5,110,600  |                          | \$43,453                 |
| Total for Debt Service 2  |                   |                   | \$5,155,600  |                          | \$43,835                 |
| Total for Debt Service 3  |                   |                   | \$10,157,600 |                          | \$86,365                 |

### DEBT SERVICE IMPACT

The bulk of the capital improvements cost comes from debt service—paying off loans. The highest priority capital improvement projects are those upgrading the town's sewer and water system. Most of these projects are priority one projects, meaning they are very likely to occur. The next tier of improvements, Debt Service 2, is not too far from debt service for Debt Service 1 projects. Debt Service 3, which is completing all projects, is almost twice as much as the cost of Debt Service 1; the main spring replacement is by far the most expensive project, almost double the cost of priority one and two projects.

### EVALUATION OF CAPITAL UPGRADES ON TOWN BUDGET

Since Debt Service 2 has a nearly identical cost to Debt Service 1, it is advised to go through with both. This would greatly improve the town's sewer and water system, which is expected to become its highest revenue source. The expected revenue will cover the costs for all projects, making it likely that New Windsor can continue with all projects.

However, the growth scenarios and expected revenue numbers must be met to afford all capital projects. It's also important to note that if the town meets growth scenario one, hooking every household to sewer and water may be a worthwhile investment and even allow for the completion of all priority levels of projects.

### COSTS

#### TABLE 22: SUMMARY OF COSTS

This cost summary includes all the costs for the town of New Windsor. The table shows the total costs for each growth scenario and total costs without EEF, the sewer and water costs, included. Both are included because the EEF costs come with a lot of assumptions for the numbers and are can't be completely accurate. It's also

important to note that a utility like, water or sewer, is usually revenue neutral, so even if the town could generate revenue from the utility, they could also cut their costs and revenues for EEF. Showing the EEF numbers allows that examination.

In Table 22, the highest expenditures are on water and sewer, and public works; every house needs constant access to water and sewer, and public works are an ongoing expenditure. Cutting the water and sewer expenditure reduces the total FY21 costs per household by almost half, and also drastically reduces the costs for each growth scenario. Cutting the EEF costs in the fiscal model also cuts the costs of debt service and water and sewer.

#### FY21 Summary of Costs

| Costs                              | FY 2021 Average Costs per household | Growth Scenario 1 | Growth Scenario 2 | Growth Scenario 3 |
|------------------------------------|-------------------------------------|-------------------|-------------------|-------------------|
| Parks                              | \$20                                | \$829             | \$1,415           | \$2,506           |
| Legislative Expenditures           | \$0                                 | \$0               | \$0               | \$0               |
| Executive Expenditures             | \$0                                 | \$0               | \$0               | \$0               |
| Professional Services Expenditures | \$0                                 | \$0               | \$0               | \$0               |
| Municipal Building Expenditures    | \$0                                 | \$0               | \$0               | \$0               |
| Planning and Zoning Expenditures   | \$7                                 | \$306             | \$523             | \$926             |
| Public Works Expenditures          | \$449                               | \$18,408          | \$31,428          | \$55,672          |
| Public Safety Expenditures         | \$39                                | \$1,585           | \$2,707           | \$4,794           |
| Miscellaneous Expenditures         | \$151                               | \$6,193           | \$10,574          | \$18,731          |
| Water Expenditures                 | \$421                               | \$17,247          | \$29,446          | \$52,161          |
| Existing Water Debt Service        | -                                   | \$104,000         | \$104,000         | \$104,000         |
| Sewer Expenditures                 | \$441                               | \$18,101          | \$30,903          | \$54,743          |
| Existing Sewer Debt Service        | -                                   | \$72,000          | \$72,000          | \$72,000          |
| EEF Personnel Expenditures         | \$259                               | \$10,635          | \$18,157          | \$32,164          |
| Total                              | \$1,788                             | \$249,303         | \$301,151         | \$397,697         |
| Total without EEF costs            | \$926                               | \$37,956          | \$64,802          | \$114,793         |



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## REVENUES

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**TABLE 23: REVENUE SUMMARY**

The revenue summary combines all revenues and includes a total without EEF revenues as done in the cost analysis. Any revenues listed as \$0 are deemed not variable and won't increase with growth.

As shown in Table 23, the largest contributors to revenue are EEF revenues, making up 95% of all revenues in each growth scenario. However, the assumptions for EEF revenues are generous. If the town were to make money off the EEF revenues they would go down to zero, since EEF revenues are supposed to be revenue neutral. Therefore, it's worth looking at the revenues without EEF, which shows that residential real property tax calculations generate the revenue. This revenue is highly variable—more people means more households, which increases residential tax revenues. However, New Windsor would need to build new properties that meet the market to increase this residential tax revenue.

Certain revenue sources required calculations to obtain an accurate number. For example, building permit revenue was calculated by multiplying the permit fee by the number of projected households in each growth scenarios. The building permit fee is a one-time fee for each new house. Impact fee revenues were calculated using the same method. Income tax revenues were calculated by multiplying 2020 median income by the projected population. This number was then multiplied by the income tax rate and divided by 100. Sewer and water revenues were found by multiplying rates and charges by average water use per household, then multiplied by 25 for an estimate of how much revenue sewer and water will generate over the 25 years of projected growth.

The analysis includes only residential property tax revenues, under the assumption that no new office or retail buildings would be built. We didn't apply a vacancy rate to projected new units and we assumed all new units would be purchased.

### **FY21 Summary of Revenues**

| Sources of Revenue                         | Growth Scenario 1 | Growth Scenario 2 | Growth Scenario 3 |
|--|-------------------|-------------------|-------------------|
| Building Permits                           | \$6,970           | \$11,900          | \$21,080          |
| Licences, Permits, & Other Revenues        | \$1,585           | \$2,707           | \$4,794           |
| Intergovernmental Revenues                 | \$0               | \$0               | \$0               |
| Service Fee Revenues                       | \$122             | \$209             | \$370             |
| Miscellaneous Revenues                     | \$0               | \$0               | \$0               |
| Residential Real Property Tax Calculations | \$37,311          | \$63,701          | \$112,842         |
| Income Tax Calculations                    | \$1,261           | \$3,396           | \$5,798           |
| EEF Revenues                               | \$1,305,019       | \$2,227,712       | \$3,945,830       |
| Impact Fees                                | \$21,853          | \$37,310          | \$66,092          |
| Total                                      | \$1,374,122       | \$2,346,935       | \$4,156,807       |
| Total without EEF revenues                 | \$69,103          | \$119,223         | \$210,977         |

## NET FISCAL

**TABLE 24: NET FISCAL IMPACT**

Within Table 24 shows the net fiscal impact of each growth scenario with completing projects at each priority level. In each scenario, the town analysis shows that the town could generate between one and four million dollars every year. However, this rate is unlikely. It's more likely that growth scenario one would generate revenue, based on findings from the existing conditions analysis in which the town's growth rate is slowing compared to its historical growth rate. So, with EEF revenues included, the most likely outcome is that the town generates about one million dollars annually, though it must be emphasized that the level of growth in scenario one (or any scenario), is unlikely to occur naturally.

### Net Fiscal Impact

| Fiscal Impact with priority 1 projects |             | Fiscal Impact with priority 1 & 2 projects |             | Fiscal Impact with priority 1, 2, & 3 projects |             |
|--|-------------|--|-------------|--|-------------|
| Growth Scenario 1                      |             | Growth Scenario 1                          |             | Growth Scenario 1                              |             |
| Revenues                               | \$1,374,122 | Revenues                                   | \$1,374,122 | Revenues                                       | \$1,374,122 |
| Costs                                  | \$249,303   | Costs                                      | \$249,303   | Costs  | \$249,303   |
| New Debt Service 1                     | \$43,453    | New Debt Service 2                         | \$43,835    | New Debt Service 3                             | \$86,365    |
| Net Fiscal Impact                      | \$1,081,366 | Net Fiscal Impact                          | \$1,080,983 | Net Fiscal Impact                              | \$1,038,454 |
| Growth Scenario 2                      |             | Growth Scenario 2                          |             | Growth Scenario 2                              |             |
| Revenues                               | \$2,346,935 | Revenues                                   | \$2,346,935 | Revenues                                       | \$2,346,935 |
| Costs                                  | \$301,151   | Costs                                      | \$301,151   | Costs  | \$301,151   |
| New Debt Service 1                     | \$43,453    | New Debt Service 2                         | \$43,835    | New Debt Service 3                             | \$86,365    |
| Net Fiscal Impact                      | \$2,002,331 | Net Fiscal Impact                          | \$2,001,948 | Net Fiscal Impact                              | \$1,959,419 |
| Growth Scenario 3                      |             | Growth Scenario 3                          |             | Growth Scenario 3                              |             |
| Revenues                               | \$4,156,807 | Revenues                                   | \$4,156,807 | Revenues                                       | \$4,156,807 |
| Costs                                  | \$397,697   | Costs                                      | \$397,697   | Costs  | \$397,697   |
| New Debt Service 1                     | \$43,453    | New Debt Service 2                         | \$43,835    | New Debt Service 3                             | \$86,365    |
| Net Fiscal Impact                      | \$3,715,657 | Net Fiscal Impact                          | \$3,715,275 | Net Fiscal Impact                              | \$3,672,745 |



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**TABLE 25: NET FISCAL IMPACT WITHOUT EEF COSTS AND REVENUES**

Table 25 shows net fiscal impact for the town, without the EEF costs and revenues. We believe these to be more realistic scenarios than the previous scenarios with the EEF costs and revenues.

Since water and sewer revenues are usually revenue neutral, any time the town might make a profit on them, they would reduce back to zero. Not including them provides a more realistic look at the fiscal impact of growth in New Windsor.

The most realistic scenario is growth scenario one, seen below in Table 25. It puts New Windsor “in the red” as far as offsetting costs with growth. Scenario two sees the generating a profit until it implements the third level priority projects. Scenario three is the best outcome for New Windsor generating revenue with all projects completed. Should the town want to offset the costs of these projects with revenues from growth, scenario two would be the most realistic for the town to pursue but would require it to aggressively increase growth as well as skip completing the lowest priority projects to meet these numbers.

#### Net Fiscal Impact without EEF Costs & Revenues

##### Fiscal Impact with priority 1 projects

|                    |           |
|--------------------|-----------|
| Growth Scenario 1  |           |
| Revenues           | \$69,103  |
| Costs              | \$37,956  |
| New Debt Service 1 | \$43,453  |
| Net Fiscal Impact  | -\$12,306 |

##### Growth Scenario 2

|                    |           |
|--------------------|-----------|
| Revenues           | \$119,223 |
| Costs              | \$64,802  |
| New Debt Service 1 | \$43,453  |
| Net Fiscal Impact  | \$10,968  |

##### Growth Scenario 3

|                    |           |
|--------------------|-----------|
| Revenues           | \$210,977 |
| Costs              | \$114,793 |
| New Debt Service 1 | \$43,453  |
| Net Fiscal Impact  | \$52,732  |

##### Fiscal Impact with priority 1 & 2 projects

|                    |           |
|--------------------|-----------|
| Growth Scenario 1  |           |
| Revenues           | \$69,103  |
| Costs              | \$37,956  |
| New Debt Service 2 | \$43,835  |
| Net Fiscal Impact  | -\$12,688 |

##### Growth Scenario 2

|                    |           |
|--------------------|-----------|
| Revenues           | \$119,223 |
| Costs              | \$64,802  |
| New Debt Service 2 | \$43,835  |
| Net Fiscal Impact  | \$10,585  |

##### Growth Scenario 3

|                    |           |
|--------------------|-----------|
| Revenues           | \$210,977 |
| Costs              | \$114,793 |
| New Debt Service 2 | \$43,835  |
| Net Fiscal Impact  | \$52,349  |

##### Fiscal Impact with priority 1, 2, & 3 projects

|                    |           |
|--------------------|-----------|
| Growth Scenario 1  |           |
| Revenues           | \$69,103  |
| Costs              | \$37,956  |
| New Debt Service 3 | \$86,365  |
| Net Fiscal Impact  | -\$55,218 |

##### Growth Scenario 2

|                    |           |
|--------------------|-----------|
| Revenues           | \$119,223 |
| Costs              | \$64,802  |
| New Debt Service 3 | \$86,365  |
| Net Fiscal Impact  | -\$31,944 |

##### Scenario 3

|                    |           |
|--------------------|-----------|
| Revenues           | \$210,977 |
| Costs              | \$114,793 |
| New Debt Service 3 | \$86,365  |
| Net Fiscal Impact  | \$9,819   |



## SUMMARY OF FINDINGS

The exploratory analysis of demographic data gave the team significant insight into the town and itself and modeling growth scenarios. New Windsor is a small rural community, appealing to upper-middle class households and retired or near retirement older couples and individuals. Analysis indicates that the town's population is aging, placing a higher emphasis on smaller household sizes. The existing conditions analysis provided New Windsor's historic household growth rate of 8% over the last decade, which we used as a baseline growth rate for projections.

The team created five projections from Baltimore Metropolitan Council (BMC) and Maryland Department of Planning (MDP). The BMC projections include town, county, and regional levels, with the town level projection based on traffic analysis zone (TAZ) data. MDP projections were only included at the county and region level.

Growth rates were calculated from BMC and MDP for corresponding areas, and then applied to 2020 Esri data. Three resulting scenarios project household and population growth for New Windsor over the next 25 years. The scenarios are based on New Windsor's growth rates from BMC's projection, Carroll County's growth rates from BMC's projection, and New Windsor's historical growth rates. Basing the three scenarios on New Windsor's historical growth rate will show a large increase in households and population; using BMC's projected growth rates show a smaller increase in households and population.

This report's fiscal models help the town estimate the fiscal impacts of different growth scenarios. The model uses estimated costs and revenues along with the town's planned capital improvements. The model can be adapted to new or adjusted data and plans.

The analysis found it would be difficult for the town to pay for improvements if it follows its current growth trend (scenario one). If the town expands growth minimally, as seen in scenario two, it can expect to afford some but not all the improvements. Lastly, growth scenario 3, which projects the highest amount of growth, is the only scenario that could fully cover the cost of these improvements but would require massive policy changes on the town's end to account for said growth. It is important to once again emphasize that these three scenarios are not likely to happen on their own but are baselines if the town decides to implement change regarding population growth.